DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

CHAPTER 22

OIL AND GAS CONSERVATION

Sub-Chapter 1

Organizational Rule

Sub-Chapter 2

Overall Procedural Rules

Sub-Chapter 3

General Provisions

Sub-Chapter 4

Board Employees

NEXT PAGE IS 36-4805

OIL AND GAS CONSERVATION

Sub-Chapters 8 and 9 Reserved

Sub-Chapter 10

Drilling

Sub-Chapter 11

Safety

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

Sub-Chapter 12

Production

Sub-Chapter 14

Underground Injection Control

Sub-Chapter 15 Reserved

Sub-Chapter 16

Regulations to Implement the Natural Gas Policy Act

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

Sub-Chapter 17

Horizontal Wells and Enhanced Recovery Tax Incentives

Sub-Chapter 1

Organizational Rule

36.22.101 ORGANIZATIONAL RULE (1) The board of oil and gas conservation organization is described in ARM 36.1.101. (History: Sec. 2-4-201, MCA; IMP, Sec. 2-4-201, MCA; Eff. 12/31/72.)

Sub-Chapter 2

Overall Procedural Rules

36.22.201 PROCEDURAL RULES (1) The board of oil and gas conservation adopts the procedural rules as stated in ARM 36.2.101. (History: Sec. 2-4-201, MCA; IMP, Sec. 2-4-201 and 2-4-202, MCA; Eff. 12/31/72.)

36.22.202 ENVIRONMENTAL POLICY ACT PROCEDURAL RULES (1) The board of oil and gas conservation adopts the procedural rules as stated in ARM 36.2.521 through ARM 36.2.543 and ARM 36.2.605 through 36.2.611, except the terms "the agency", "the department", and "the board" mean the board of oil and gas conservation." (History: Sec. 2-3-103, 2-4-201, MCA; IMP, Sec. 2-3-104, MCA; NEW, 1990 MAR p. 531, Eff. 3/16/90.)

NEXT PAGE IS 36-4831

Sub-Chapter 3

General Provisions

36.22.301 EFFECTIVE SCOPE OF RULES (1) General rules shall be statewide in application unless otherwise specifically stated. Special rules and orders will be issued when required and shall prevail as against general rules if in conflict therewith. (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-141, MCA; Eff. 12/31/72.)

36.22.302 DEFINITIONS Unless the context otherwise requires, the words defined shall have the following meaning when found in these rules:

(1) "Acidizing" means introduction of acid into a formation containing oil or gas to increase the producing ability of a well by dissolving a part of the reservoir rock or to clean the face of a formation.

(2) "Aquifer" means a stratum or zone of rock which is sufficiently permeable to conduct ground water and to yield economically significant quantities of water.

(3) "Artificial lift" means any method by which oil or water is removed from a well bore by use of energy transmitted from the surface through the same well bore.

(4) "Barrel" means a quantity equal to 42 United States gallons at a temperature of 60 degrees Fahrenheit and at atmospheric pressure.

(5) "Blow-out" means an uncontrolled escape of drilling fluid, water, oil, or gas from a well.

(6) "Blow-out preventer" means an effective casinghead control equipped with special gates or rams which can be closed around the drill pipe or which completely closes the top of the casing.

(7) "Board" means the board of oil and gas conservation provided for in 2-15-3303, MCA.

(8) "Bottom hole pressure" means the pressure in pounds per square inch determined at the face of the producing horizon by means of a pressure recording instrument adopted and recognized by the oil and gas industry. In the case of pumping or dually completed wells, a sonic device may be used. In the case of gas wells or wells having no liquid in the well bore, it means the pressure as calculated by adding the pressure at the surface of the ground to the calculated weight of the column of gas from the surface to the bottom of the hole.

(9) "Casing pressure" means the pressure existing at the wellhead in the annulus between the casing and tubing.

(10) "Casinghead gas" means any gas, vapor, or both gas and vapor indigenous to an oil stratum and produced from the stratum with oil.

(11) "Combination well" means a well productive of both oil and gas in commercial quantities from the same common source of supply.

(12) "Completion date":

(a) of an oil well means the date when the first oil is produced through wellhead equipment into lease tanks from the ultimate producing interval after casing has been run;

(b) of a gas well means the date when the well is capable of producing gas through wellhead equipment from the ultimate producing interval after casing has been run; and

(c) of a dry hole means the date the top of the surface casing is sealed with a cement plug, steel cap or plate, or other approved method.

(13) "Completion report" means board report Form No. 4 which is to be submitted to the board in triplicate for all wells drilled as specified in ARM 36.22.1013 and ARM 36.22.1011.

(14) "Common source of supply" is synonymous with pool. (15) "Condensate" means the liquid produced by the condensation of a vapor or gas either after it leaves the reservoir or while still in the reservoir. Condensate is often called distillate, drips, white oil, etc.

(16) "Controlled gas field" means any common source of supply of natural gas discovered after July 1, 1951, or any field discovered prior to July 1, 1951, provided any pool therein has been discovered after July 1, 1951, unless otherwise designated by the board.

(17) "Controlled oil field" means any common source of supply of crude oil discovered after July 1, 1951, or any field discovered prior to July 1, 1951, provided any pool therein has been discovered after July 1, 1951, unless otherwise designated by the board.

(18)"Controlled production" means the production of oil, gas, or both oil and gas from a controlled oil or gas field, unless otherwise designated by the board.

(19) "Crude oil" means petroleum oil and other hydrocarbons, regardless of gravity, which are produced at the wellhead in liquid form by ordinary production methods and which are not the result of condensation of gas before or after it leaves the reservoir.

(20) "Cubic foot of gas" means the volume of gas contained in one cubic foot of space at a standard pressure base and a standard temperature base. The standard pressure base is 14.73 pounds per square inch absolute and the standard temperature base is 60 degrees Fahrenheit.

(21) "Day" means a period of twenty-four consecutive hours.

(22) "Degrade" means that as a result of any source discharging pollutants to groundwater or surface water, the concentration of a pollutant for which maximum contaminant levels

are established in subsection (4) of ARM 16.20.1003 has become worse, or that the concentration of other pollutants has become worse and will adversely affect existing beneficial uses or beneficial uses reasonably expected to occur in the future.

(23) "Drilling fluid" means any fluid used in the drilling of an oil or gas well to remove, hold, and carry cuttings to the surface; to cool or lubricate a drill bit; to line the bore hole; to control subsurface pressures; to support the weight of the drill pipe or casing; to protect formations; or to transmit hydraulic horsepower to the drill bit.

(24) "Dry gas" means natural gas obtained from pools that produce gas only or natural gas obtained that does not contain the heavier fractions that may easily condense under normal atmospheric conditions and that is not casinghead gas.

(25) "Earthen pit" means any indentation in the ground that is used in oil or gas exploration or production activities including, but not limited to, reserve pits, skimming pits, settling pits, produced water pits, percolation pits, evaporation pits, emergency pits, and workover pits.

(26) "Fence" means a barrier constructed of posts and wire or other materials.

(27) "Flow line":

(a) means a pipeline used to transfer crude oil, gas, and produced water from the wellhead to production treatment, separation, or storage facilities;

(b) also means a pipeline used to transfer produced water or other fluids from a production or injection facility to an injection or disposal well;

(c) does not mean a transmission pipeline.

(28) "Fracturing" means the introduction of fluid that may or may not carry in suspension a propping agent under pressure into a formation containing oil or gas for the purpose of creating cracks in said formation to serve as channels for fluids to move to or from the well bore.

(29) "Fresh water" means water containing less than 10,000 parts per million (ppm) total dissolved solids (TDS).

(30) "Freshwater-based drilling fluid" means any drilling fluid other than a salt-based drilling fluid or oil-based drilling fluid.

(31) "Gas" means all natural gases and all other fluid hydrocarbons as produced at the wellhead and not defined as oil in 82-11-101, MCA. (Section 82-11-101, MCA.)

(32) "Gas allowable" means the amount of natural gas authorized to be produced by order of the board in connection with the prevention of waste.

(33) "Gas-oil ratio" means the ratio of gas in standard cubic feet to oil in barrels produced concurrently during any stated period.

(34) "Gas injection" means the introduction of gas or air

NEXT PAGE IS 36-4835

into a common source of supply in order to replenish, replace, or increase the energy of the reservoir.

(35) "Gas well" means:

(a) a well that produces natural gas only;

(b) any well capable of producing at least 10,000 standard cubic feet of gas per stock tank barrel of oil per day for any calendar month; and

(c) any well classed as a gas well by the board for any reason.

(36) "Harm to soil(s)" means a reduction in the plant productivity which existed at the site of a drilling well, idled well, shut-in well, or production facility prior to the initiation of oil and gas exploration or production activities.

(37) "Hazardous substance" means any substance defined as a hazardous or deleterious substance in 75-10-701, MCA.

(38) "Hazardous waste" means any waste defined as a hazardous waste in ARM 16.44.303.

(39) "Horizontal drainhole" means that portion of a wellbore with 70 degrees to 110 degrees deviation from the vertical and a horizontal projection within the common source of supply that exceeds 100 feet.

(40) "Horizontal drainhole end point" means the terminus of a horizontal drainhole.

(41) "Horizontal well" means:

(a) a well with one or more horizontal drainholes; and

(b) any other well classified by the board as a horizontal well.

(42) "Illegal gas" means gas that has been produced from any well or wells in violation of any law or of any rule or order of the board.

(43) "Illegal oil" means oil that has been produced from any well or wells in violation of any law or of any rule or order of the board.

(44) "Irrigated cropland" means any land that is customarily supplied with water by artificial means for growing plants.

(45) "MER" means maximum efficient rate and is the rate of production of oil, gas, and water from a well, wells, or pool which the board finds will result in the maximum ultimate recovery of oil and gas from the pool, under prudent and proper operations.

(46) "Merchantable oil" means any oil that can be sold or traded on a commercial basis. Oil sludge, tank bottoms and waste oil are not merchantable oils.

(47) "Net" means an open-meshed, twisted, knotted, knitted, or woven material used to completely cover a pit, pond, tank, or other oil or gas exploration or production facility.

(48) "Oil" means crude petroleum oil and other hydrocarbons regardless of gravity that are produced at the wellhead in liquid form by ordinary production methods and that are not the result of condensation of gas before or after it

leaves the reservoir. (Section 82-11-101 (10), MCA.)

(49) "Oil allowable" means the amount of oil authorized to be produced by order of the board in connection with the prevention of waste.

(50) "Oil sludge" means a viscous, unmerchantable oil that contains mud or other impurities.

(51) "Oil well" means any well capable of producing oil in commercial quantities and that is not a gas well.

(52) "Operator" means any person who, duly authorized, is in charge of development and/or producing operations.

(53) "Owner" means the person who has the right to drill into and produce from a pool and to appropriate the oil or gas he produces from a pool for himself and others, and the term includes all persons holding that authority by or through him. (Section 82-11-101, MCA.)

(54) "Perennial watercourse" means a lake, stream, river, or other body of water that flows or retains water continuously throughout the year."

(55) "Permeability" means that property of a porous media that designates its ability to transmit fluids.

(56) "Person" means any natural person, corporation, association, partnership, receiver, trustee, executor, administrator, guardian, fiduciary, or other representative of any kind and includes any agency or instrumentality of the state or any governmental subdivision of the state. (Section 82-11-101(12), MCA.)

(57) "Porosity" means the ratio of rock pore volume to rock bulk volume expressed as a percentage.

(58) "Potential" means the actual or properly computed daily ability of a well to produce oil or gas or both.

(59) "Pressure maintenance" means the introduction of fluid or fluids into an oil or gas reservoir to retard the decline of or increase the pressure of the reservoir.

(60) "Produced fluid" means any fluid, including oil, gas, and water, originating from subsurface geologic sources.

(61) "Production facility" means any facility or site constructed or used for the purpose of producing, treating, or separating produced fluid, including but not limited to, oil, gas, injection, or disposal wells, pumping units, flow lines, gas flares, treaters, separators, gun barrels, storage tanks, production pits and ponds, skimmer pits, and evaporation pits or ponds. A transmission pipeline is not a production facility.

(62) "Proved productive area" means that area which has been shown by development and/or geological information to be such that additional wells drilled thereon are reasonably certain to be commercially productive of oil or gas or both.

(63) "Purchaser" means any person who directly or indirectly purchases, transports, takes, or otherwise removes production to his account from a well, wells, or pool.

(64) "Reservoir pressure" means bottom hole pressure under static conditions.

(65) "Saltwater-based drilling fluid" means any drilling fluid containing sodium chloride in concentrations of more than 10,000 parts per million (ppm), or lime (calcium oxide or calcium carbonate) in concentrations of more than 40,000 ppm, or gypsum (calcium sulfate) in concentrations of more than 50,000 ppm.

(66) "Screen" means an open-meshed, twisted, knotted, knitted or woven material that is firmly attached to a fence.

(67) "Service company" means any person, other than an operator or a drilling contractor, that provides goods or services associated with oil or gas exploration and production operations.

(68) "Solid waste" means any waste defined as a solid waste under 75-10-103, MCA.

(69) "Spacing unit" means the area that can be efficiently drained by one well.

(70) "Standard conditions of temperature and pressure" means 14.73 pounds per square inch absolute and 60 degrees Fahrenheit.

(71) "Stratigraphic well or core hole" means a well drilled for stratigraphic information only.

(72) "Stripper gas well" means a gas well that produces an average of 60 thousand standard cubic feet (MCF) or less of gas per day for a calendar month.

(73) "Stripper oil well" means an oil well that produces less than an average of 10 barrels of oil per day for a calendar month.

(74) "Tank bottoms" means the unmerchantable oil, basic sediment, and water in oil production storage tanks, separators, and other production facilities and receptacles.

(75) "Transmission pipeline" means a pipeline used to gather and transfer marketable crude oil or natural gas from production treatment, separation, and storage facilities. A flow line is not a transmission pipeline.

(76) "Tubing pressure" means the pressure existing in the tubing at the wellhead.

(77) "Water injection or water flooding" means the injection of water into a pool through one or several wells to achieve displacement of the oil from the pool.

(78) "Waste":

(a) means physical waste, as the term is generally understood in the oil and gas industry;

(b) means the inefficient, excessive, or improper use of, or the unnecessary dissipation of reservoir energy;

(c) means the location, spacing, drilling, equipping, operating, or producing of any oil or gas well or wells in a manner that causes or tends to cause reduction in the quantity of oil or gas ultimately recoverable from a pool under prudent and proper operations or that causes or tends to cause unnecessary or excessive surface loss or destruction of oil or

gas; and

(d) means the inefficient storing of oil or gas; but

(e) does not mean the production of oil or gas from any pool or by any well to the full extent that such well or pool can be produced in accordance with methods designed to result in maximum ultimate recovery, as determined by the board. (Section 82-11-101(18), MCA.)

(79) "Waste oil" means discarded or unmerchantable oil.

(80) "Well logs" means electrical, radiation, sonic, or other routine logs run by mechanical means in a well and all other logs, surveys, analyses, and reports run or made.

(81) "Well, wildcat or exploratory":

(a) means any well drilled for oil or gas outside of a delineated field;

(b) means a well drilled to a stratum other than one then productive within a delineated field; but

(c) does not mean a stratigraphic well or core hole. (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-111, MCA; Eff. 12/31/72; AMD, 1977 MAR p. 549, Eff. 9/24/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1992 MAR p. 806, Eff. 4/1/92; AMD, 1993 MAR p. 152, Eff. 7/1/93.)

36.22.303 CLASSIFICATION OF WILDCAT OR EXPLORATORY WELLS

(1) If a test for fluid productivity is made in a stratigraphic well or core hole, the well must be reclassified as "wildcat or exploratory" and is subject to all the rules of a well drilled for oil or gas.

(2) Wells drilled in a delineated field to known productive horizons cannot be classified as "stratigraphic." (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-111, MCA; Eff. 12/31/72; AMD, 1977 MAR p. 549, Eff. 9/24/77.)

36.22.304 INSPECTION OF RECORDS, PROPERTIES, AND WELLS

(1) The petroleum engineer and his authorized agents shall have access to all factual well records.

(2) The petroleum engineer and his authorized agents shall have the right at all reasonable times to go upon and inspect any oil and gas properties and wells for the purpose of making any investigation or tests to ascertain whether the provisions of Title 82, chapter 11, parts 1 and 2, these rules, or any special rules or orders are being complied with and shall report any violation thereof to the board.

(3) All owners, drilling contractors, drillers, service companies, and other persons engaged in drilling or servicing wells, shall permit the petroleum engineer or authorized agents at his or their risk in the absence of negligence on the part of the owner to come upon any lease, property, or well operated or controlled by them to inspect the records and operation of such wells and to have access at all times to all records of wells. (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-111, MCA; Eff. 12/21/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.305 NAMING OF POOLS (IS HEREBY REPEALED) (History: 82-11-111, MCA; IMP, 82-11-111, MCA; Eff. 12/31/72; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.306 ORGANIZATION REPORTS (1) On or before January 31, 1954, every person acting as principal or as agent for another who is independently engaged in oil and gas operations in the state shall file under oath with the board on Form No. 1 a statement giving the following information:

(a) the name under which such business is being operated or conducted;

(b) the name and post office address of such person and the business or businesses in which he is engaged;

(c) the plan or organization and, in case of a corporation, the law under which it is chartered; and

(d) the post office addresses of any persons acting as trustees together with the names of the manager, agent, or executive thereof, and the names and post office addresses of any officers thereof.

(2) Immediately after any change occurs as to facts stated in the report filed as required by (1), a supplementary report under oath shall be filed with the board with respect to such change. (History: 82-11-111, MCA; IMP, 82-11-122 and 82-11-123, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.307 ADOPTION OF FORMS (1) The forms hereinafter listed are hereby adopted and made a part of these rules for all purposes, and the same must be used as herein directed in giving notice and in making reports and requests to the board. Copies of printed forms will be supplied by the board on request. Address requests for forms to: Board of Oil and Gas Conserva-tion, 1625 Eleventh Avenue, Helena, Montana 59620-1601.

(a) Form No. 1 Organization Report
(b) Form No. 2 Sundry Notice and Report of Wells
(c) Form No. 3 Bond
(d) Form No. 4 Completion Report
(e) Form No. 4AContinuation Sheet Form 4
(f) Form No. 5 Report of Subsurface Injections
(g) Form No. 6 Report of Production
(h) Form No. 7 Transportation Agency's Monthly Report of Receipts and Disposition of Crude Oil
(i) Form No. 8 Refiner's Monthly Report of Receipts and Disposition of Crude Oil
(j) Form No. 9 Monthly Gas Report
(k) Form No. 9AContinuation Sheet Form 9
(l) Form No. 10Gasoline or other Extraction Plant
(m) Form No. 10A Continuation Sheet Form 10

(n) Form No. 11 Reservoir Survey Report and Gas-Oil Ratio
(o) Form No. 13 Producers Certificate of Compliance and Authorization to Transport Oil and Gas from Lease
(p) Form No. 14 Certificate of Deposit Cash Bond
(q) Form No. 15A N.G.P.A. Application for New Natural Gas Determination
(r) Form No. 15B N.G.P.A. Application for New Onshore Production Well Determination
(s) Form No. 15C N.G.P.A. Application for Stripper Well Natural Gas Determination
(t) Form No. 16 Objection to N.G.P.A. Application
(u) Form No. 17 Notice of Classification Determination
(v) Form No. 18 Domestic Well Bond and Lien
(w) Form No. 19 Release Agreement
(x) Form No. 20 Notice of Intent to Change Operator
(y) Form No. 21 Application for Release of Well from Bond
(z) Form No. 22 Application for Permit (Drill, Deepen or Re-Enter)
(aa) Form No. 23 Application for Permit (Earthen Pit or Pond)

(History: Sec. 82-11-111, MCA; IMP, Sec. 2-4-201, MCA; Eff. 12/31/72; AMD, 1977 MAR p. 549, Eff. 9/4/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1984 MAR p. 931, Eff. 6/15/84; AMD, 1990 MAR p. 305, Eff. 2/9/90; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.308 SEAL OF BOARD (REPEALED) (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-111, MCA; Eff. 12/31/72; REP, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.309 REFERRAL OF ADMINISTRATIVE DECISIONS (1) The board administrator may refer any administrative action or decision to the board for consideration.

(2) Administrative actions or decisions referred by the board administrator to the board for consideration must be presented in the form of a petition, and are subject to the notice and hearing requirements of section 82-11-141, MCA. (History: Sec. 82-11-111, 82-11-115, MCA; IMP, Sec. 82-11-115 and 82-11-141, MCA; NEW, 1993 MAR p. 152, Eff. 7/1/93.)

NEXT PAGE IS 36-4851

Sub-Chapter 4

Board Employees

36.22.401 OFFICE AND DUTIES OF PETROLEUM ENGINEER (IS HEREBY REPEALED) (History: Sec. 82-11-111, MCA; IMP, Sec. 2-15-3303, MCA; Eff. 12/31/72; REP, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.402 OFFICE AND DUTIES OF ADMINISTRATOR (IS HEREBY REPEALED) (History: Sec. 82-11-111, MCA; IMP, Sec. 2-15-3303, MCA; Eff. 12/31/72; REP, 1982 MAR p. 1398, Eff 7/16/82.)

36.22.403 OFFICE AND DUTIES OF GEOLOGIST (IS HEREBY REPEALED) (History: Sec. 82-11-111, MCA; IMP, Sec. 2-15-3303, MCA; Eff. 12/31/72; REP, 1982 MAR p. 1398, Eff 7/16/82.)

NEXT PAGE IS 36-4871

Sub-Chapter 5

Seismic Exploration Activities

36.22.501 SHOT LOCATION LIMITATIONS (1) No vibroseis shall be done closer than 330 feet, or seismic shot hole drilled or surface charge set closer than 1320 feet (1/4 mile) to any building, structure, water well, or spring; nor closer than 660 feet (1/8 mile) to any reservoir dam without written permission of the surface owner. (History: Sec. 82-1-104, MCA; IMP, Sec. 82-1-l04, MCA; NEW, 1977 MAR p. 1196, Eff. 12/24/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1983 MAR p. 1193, Eff. 8/26/83; AMD, 1987 MAR p. 1095, Eff. 7/17/87.)

36.22.502 PLUGGING AND ABANDONMENT Unless otherwise agreed to between the surface owner; the company, firm, corporation, or individual responsible for the drilling of seismic shot holes; and the board's designated inspector, all such holes shall be plugged and abandoned as set forth below; provided, however, that before the surface owner agrees to a plugging method which deviates from this rule, he must be given a copy of this rule:

(1) The seismic company responsible for the plugging and abandonment of seismic shot holes shall notify the board in writing at its Billings office of its intent to plug and abandon, including the date and time such activities are expected to commence, the location by section, township and range of the holes to be plugged, and the name and telephone number of the person in charge of the plugging operations. A copy of this notice shall be sent to the surface owner at the same time.

(2) All seismic shot holes shall be plugged before shooting. Exceptions may be granted after approval by the board's designated inspector. In the event the original plug does not hold, the hole shall be properly plugged as soon as reasonably practicable; however, in no event shall any hole remain unplugged for a period of more than 30 days unless, upon application, the board or its staff grants an extension which may not exceed 90 days. All holes shall be temporarily capped during the period between drilling and final plugging.

(3) When drilling seismic shot holes, and non-artesian water is encountered or when water is used in conjunction with the drilling, plugging shall be accomplished by filling the hole with coarse ground bentonite from the bottom up to 5 feet above the static water level with a minimum of 100 pounds of bentonite. The hole shall be further filled and tamped with cuttings to a depth of three feet below ground level. All shot holes drilled in the glacial till area of Montana as shown on

USGS Miscellaneous Geologic Investigations Map I-327 shall be filled with coarse ground bentonite from the bottom to 3 feet below the surface. A commercial plug shall be set at this depth with a permit number or the name of the contractor either imprinted on the plug or on a plastic or metallic tag securely attached to the plug. The remainder of the hole shall be filled with cuttings and soil, and a sufficient mound shall be left over the hole to allow for settling.

(a) With the approval of the board's designated inspector the shot hole may be plugged by filling the hole with bentonite-water slurry by hose injection and displacement upwards from the maximum depth attainable. The slurry mixture shall have a marsh funnel viscosity of 60 seconds or greater per quart (subject to field verification on site) and shall contain a minimum of 28 pounds of commercial plugging bentonite per 42 gallons of water. The hole shall be filled to a depth of 3 feet below ground level and the commercial plug shall be set at this depth. The remainder of the hole shall be filled with cuttings and soil, and a sufficient mound shall be left over the hole to allow for settling.

(b) Seismic holes that penetrate artesian water deposits shall be stabilized with a cement slurry to a level not higher than three feet below the surface of the ground. The cement slurry shall be of sufficient density to contain the waters to their native strata. The remainder of the hole shall be filled with native surface material. When alkaline or saline waters are encountered, the hole shall be plugged immediately as set forth in (3) and (a) except, if the bentonite-water slurry method is used, a heavier slurry mix must be used with the addition of inorganic drying or stabilizing chemicals such as calcium chloride, sodium bicarbonate, or soda ash to assist in the effective plugging and stability of the bentonite column in the hole.

(c) In completely dry holes, plugging shall be accomplished by filling the hole with not less than 50 pounds of coarse ground bentonite followed by the cuttings. The returned cuttings shall be tamped to insure the hole is not bridged. The hole shall be filled to a depth of 3 feet below the surface and the commercial plug set and topped with cuttings and soil as prescribed by paragraph (3)(a).

(i) With approval of the board's designated inspector, the shot hole may be plugged by filling the hole with the bentonite-water slurry mixture as set forth in paragraph (a).

(d) Seismic shot holes that crater or slough at the surface after being shot shall be plugged as set forth in subsections (3), (a) and (b) insofar as those procedures are

reasonably possible. However, deviations from those procedures are permissible as circumstances may dictate, provided the procedures are designed to accomplish the primary objective of containing waters penetrated by the hole to their native strata and restoring the surface as near as practicable to its original conditions. The board and surface owner shall be notified of such deviations.

(4) The surface area around each seismic shot hole shall be restored to its original condition insofar as such restoration is practicable. Cuttings shall be spread no deeper than 1 inch thick and all stakes, markers, cables, ropes, wires, primacord, cement or mud sacks, and any other debris or material not native to the area shall be removed from the drill site and deposited in a convenient sanitary landfill or other approved site or disposed of by an approved disposal method. Appropriate seeds shall be planted when required to restore the surface to its original condition.

(5) A seismic shot hole may be left unplugged at the request of the surface owner for conversion to a fresh water well provided the surface owner executes a release on Form No. 19 relieving the party otherwise responsible for the plugging and abandonment of the hole from any liability for damages that may thereafter result from the hole remaining unplugged. This release will cite the date, location, surface elevation, depth to aquifer, and any action taken. This information shall be furnished by the geophysical operator. The surface owner must also notify and file within 30 days appropriate forms with the water rights bureau of the department of natural resources and conservation. The surface owner must also apply for a permit from the board of water well contractors, and explain in detail the procedures to be used in constructing the well. This is to insure that the shot hole is properly constructed, cased and developed into a water well, according to the minimum construction standards for water wells, as adopted by the board of water well contractors. (History: Sec. 82-1-104, MCA; IMP, Sec. 82-1-104, MCA; NEW, 1977 MAR p. 1196, Eff. 12/24/77; AMD, 1982 MAR p. 1964, Eff. 10/29/82; AMD, 1983 MAR p. 1193, Eff. 8/26/83; AMD, 1984 MAR p. 931, Eff. 6/15/84; AMD, 1987 MAR p. 1095, Eff. 7/17/87.)

36.22.503 NOTIFICATION (1) The county clerk and recorder of the county in which a permit for geophysical activity is issued shall immediately forward notice of the issuance of such permit to the board of oil and gas conservation at its office in Billings, Montana.

(2) The board shall notify the county clerk and recorder of the county if the person, firm, or corporation which has

obtained a permit is not in compliance with any applicable requirement for engaging in geophysical activity within the state.

(3) If the board of oil and gas conservation determines that a person, firm, or corporation has violated any provisions of this act, the board shall take necessary action to assure compliance.

(4) Before commencing geophysical activity, the person, firm, or corporation shall notify the surface user as to the approximate time schedule of the planned activity and upon request the following information shall also be furnished;

(a) the name and permanent address of the geophysical exploration firm along with the name and address of the firm's designated agent for the state if different from that of the firm's;

(b) evidence of a valid permit to engage in geophysical exploration;

(c) name and address of the company insuring the geophysical firm;

(d) the number of the bond required in section 82-1-104, MCA, to be filed with the secretary of state;

(e) a description of the surface areas where the planned geophysical activity will take place;

(f) anticipated need, if any, to obtain water from the surface user during planned geophysical activity. (History: Sec. 82-11-111, MCA; IMP, Sec. 82-1-103, and Sec. 82-1-105 through 82-1-107, MCA; NEW, Eff. 12/24/77; AMD, l982 MAR p. l398, Eff. 7/16/82.)

36.22.504 IDENTIFICATION (1) Each unit of mobile equipment utilized in seismic exploration or plugging seismic shot holes shall display on both sides in conspicuous lettering the name of the holder of the geophysical exploration permit by or for whom the work is being done and the telephone number of the permit holder. (History: Sec. 82-1-101, MCA; IMP, Sec. 82-1-101, MCA; NEW, 1983 MAR p. 1193, Eff. 8/26/83.)

NEXT PAGE IS 36-4891

Sub-Chapter 6

Permit to Drill

36.22.601 NOTICE OF INTENTION AND PERMIT TO DRILL (1) No person shall commence the drilling of an oil or gas well or stratigraphic test well or core hole without filing an application for permit to drill on Form No. 22 and obtaining a drilling permit from the board. If the proposed well or hole is not located within the boundaries of a delineated field for which, after public hearing, an order has been entered by the board that drilling permits may issue for locations within that field without further public hearing, the applicant must:

(a) At its own expense, cause publication of notice in a format prescribed by the board in one issue of a newspaper in general circulation in Helena and a newspaper of general circulation in the county where the proposed well or hole is located; and

(b) File proof of such publication in the form of a copy of the page on which the ad appears showing the ad and the date of publication or an affidavit of the publisher.

(2) Prior to the commencement of recompletion operations on any oil or gas well, notice shall be delivered to the board of such intention on Form No. 2, and approval shall be obtained.

(3) When a permit is sought for a 320 acre drilling or spacing unit, Form No. 22 as filed with the board shall include a description of the lands to be included.

(4) The staff of the board shall refer an application for permit to drill to the board for notice and public hearing if:

(a) An interested person shall, as to any application for permit to drill for which published notice is required, file in the form hereinafter set forth a written demand for an opportunity to be heard concerning such application; or

(b) The staff determines that a person applying for a drilling permit or approval of recompletion operations is not in substantial compliance with the board's rules governing the applicant's operations in Montana; or

(c) The planned drilling operations require further environmental review.

(5) In those instances where such requests for a permit to drill have been the subject of notice and public hearing, the board shall, after such hearing, either:

(a) Enter its order granting such permit under such conditions as the board shall find proper and necessary; or

(b) Enter its order denying the application for the permit.

(6) A demand for opportunity to be heard concerning any application for permit to drill for which published notice is required must:

(a) Be in writing; and

(b) Set forth the name, address, and telephone number of

each party making the demand, and their ownership interest, if any, in the lands surrounding the drill site; and

(c) Set forth the specific reasons why the party requests a hearing regarding the issuance of the proposed drilling permit; and

(d) Be received by the board no later than ten (10) days after the date of the publication of the notice. Where the notice is not published on the same day in the newspapers specified in paragraph (1)(a) of this rule, the deadline for receiving demands for hearing will be measured by the later publication date. Service of such demand may be made on the board personally, by mail, or by FAX transmission; and

(e) Be simultaneously served upon the applicant for the permit by written copy mailed or FAX transmitted to the address or number set forth in the published notice. A certificate of such service must accompany the demand as filed with the board.

(7) Surface owner concerns which are subject to the provision of 82-10-504, MCA (Surface Damage and Disruption Payments) will not be the subject of a public hearing before the board. (History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-122, MCA; Eff. 12/31/72; AMD, Eff. 6/4/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1983 MAR p. 82, Eff. 1/28/83; AMD, 1990 MAR. p. 305, Eff. 2/9/90.)

36.22.602 NOTICE OF INTENTION TO DRILL AND APPLICATION FOR PERMIT TO DRILL (1) A notice of intention and application for permit to drill must include a survey plat certified by a registered surveyor and showing the location of the proposed well with reference to the nearest lines of an established public survey.

(2) An operator may not deviate from the board approved permit to drill and conditions thereon without approval of the board administrator. The board administrator may impose further permit modifications or conditions at any time should the factual situation warrant such modifications or conditions. (History: 82-11-111, MCA; IMP, 82-11-122, MCA; Eff. 12/31/72; AMD, Eff. 6/4/77; AMD, 1982 MAR p. 488, Eff. 3/12/82; AMD, l982 MAR p. 1398, Eff. 7/16/82; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.603 PERMIT FEES (1) Notice of intention to drill an oil or gas well or stratigraphic test well or core hole shall also be accompanied by payment of a fee, as follows:

(a) for each well whose estimated depth is 3500 feet or less, $25.00;

(b) from 3501 feet to 7000 feet, $75.00;

(c) 7001 feet and deeper, $150.00.

(2) Permits for deepening wells shall require the payment of fees for the estimated new total depth; where fees have been paid for the previous depth, credit shall be given therefor.

(History: 82-11-111 MCA; IMP, 82-11-134 MCA; Eff. 12/31/72; AMD, Eff. 6/4/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.604 PERMIT ISSUANCE - EXPIRATION - EXTENSION

(1) If no written demand for hearing has been filed within ten (10) days following the date of publication of the notice as specified in ARM 36.22.601 and the planned drilling operations do not require further environmental review, and the application complies in all respects with the applicable rules of the board, a permit shall be issued promptly by the petroleum engineer or his authorized agent.

(2) If the application for permit does not comply in all respects with such rules, said application shall be disallowed, and the petroleum engineer or his authorized agent shall promptly notify the person of the reason or reasons for such disallowance.

(3) If drilling is not commenced, no such permit to drill shall be valid after the expiration of a period of six months from the date of the issuance thereof by the board or its authorized agents. Any permittee who fails to commence drilling within the six months period of the permit must file a new application for permit to drill and pay the fee therefor.

(4) A permittee must advise the board, either verbally or in writing, of the date of spudding a permitted well within 72 hours of commencing drilling. (History: 82-11-111 MCA; IMP, 82-11-122 and 82-11-134 MCA; Eff. 12/31/72; AMD, Eff. 6/4/77; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1990 MAR p. 305, Eff. 2/9/90; AMD, 1995 MAR p. 285, Eff. 2/24/95.)

36.22.605 TRANSFER OF PERMITS (1) No person to whom a permit has been issued shall transfer the permit to any other location or to any other person until the following requirements have been complied with:

(a) If prior to the drilling of a well the person holding a permit desires to change the location, he shall submit another notice on Form 2 with a survey plat as specified in ARM 36.22.602. No additional permit fee is necessary if the estimated depth is to be the same as the originally intended well; but drilling shall not be started until the transfer has been approved.

(b) If, while a well is being drilled, the person holding a permit disposes of his interests in the well, he shall comply with the transfer requirements set forth in ARM 36.22.1308. (History: 82-11-111 MCA; IMP, 82-11-122 and 82-11-134 MCA, Eff. 12/31/72; AMD, 1990 MAR p. 305, Eff. 2/9/90; AMD, 1995 MAR p. 285, Eff. 2/24/95.)

36.22.606 NOTICE AND ELIGIBILITY STATEMENT FOR DRILLING OR RECOMPLETION IN UNIT OPERATIONS (1) If the applicant desires a statement from the petroleum engineer to be filed with another state or federal agency relating to the need for an additional well or recompletion operation, and further, if either the notice applies to a gas well to be drilled or recompleted at a location and to a formation, zone, or depth which is unitized under a unit agreement approved by the board of oil and gas conservation pursuant to 82-11-204 through 82-11-216, MCA, and as to which all applicable well spacing rules and orders, excepting well location rules and orders applicable to exterior boundaries shall have been removed or the notice applies to a recompletion within an established spacing unit in the same reservoir, the applicant shall file the notice and an eligibility statement acceptable to the petroleum engineer.

(2) Such eligibility statement shall justify the need for the drilling of the new well or the performance of the recompletion operation and shall include geologic and engineering evidence as may be necessary for the petroleum engineer to determine that the new well or the recompletion operation is needed.

(3) The petroleum engineer shall make a written finding as to the sufficiency of the eligibility statement, including the need for the new well or the recompletion operation.

(4) Should the petroleum engineer fail to issue a drilling or recompletion permit within 10 days of filing the notice and eligibility statement, the applicant may apply to the board for a determination for the need for the new well or the recompletion operation, and a hearing on such application shall be held at the next regularly scheduled meeting of the board. (History: 82-11-111 MCA; IMP, 82-11-122 and 82-11-134 MCA, Eff. 12/31/72; AMD, Eff. 6/4/77.)

36.22.607 DRILLING PERMITS PENDING SPECIAL FIELD RULES

(1) Upon receipt by the board at its Helena, Montana, office of an application or petition from any person requesting the establishment of special field rules for spacing of wells within a certain designated area all or a portion of which is not then subject to field rules or upon a decision by the board to call a hearing for the establishment of such special field rules, applications for permits to drill within such area will be held in abeyance by the board until such time as the matter has been fully heard and determined, unless the location of the well or wells in such applications to drill conform to the spacing applied for.

(2) In the event two or more applications for spacing covering all or a portion of the same area are awaiting hearings at the same time, applications for permits to drill within such area will be approved only if such applications conform to the largest spacing applied for.
(History: 82-11-111 MCA; IMP, 82-11-124 and 82-11-201 MCA, Eff. 12/31/72.)

Sub-Chapter 7

Well Spacing Units

36.22.701 SPACING UNITS GENERAL (IS HEREBY REPEALED) (History: 82-11-111 MCA; IMP, 82-11-201 MCA; Eff. 12/31/72; AMD, 1977 MAR p. 549, Eff. 9/24/77; REP, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.702 SPACING OF WELLS In proven oil and gas fields, the spacing of wells as well as the establishment of spacing units will be governed by special field rules for the particular field to be adopted after notice and hearing. In the absence of special field rules, the following rules shall govern:

(1) Unless a special exception is granted after notice and hearing, no stratigraphic test or core hole or wildcat or exploratory well with a projected depth of 6,000 feet or less shall be located closer than 330 feet to any legal subdivision line, except that a 75 foot tolerance to move closer to the quarter-quarter section lines will be allowed in extremely rough terrain where it is impractical to move in any other direction, but only after inspection of the location by a representative of the board and subsequent approval by the petroleum engineer or his authorized agent.

(2) A legal subdivision is hereby defined by the board as being a regular governmental quarter-quarter section or governmental lot corresponding thereto, consisting of 40 acres more or less.

(3) No stratigraphic test or core hole or wildcat or exploratory well with a projected depth between 6,000 feet and 11,000 feet shall be located closer than 660 feet to any governmental quarter section line, except that a 150-foot tolerance to move closer to the quarter section lines will be allowed in extremely rough terrain where it is impractical to move in any other direction, but only after inspection of the location by a representative of the board and subsequent approval by the petroleum engineer or his authorized agent.

(4) Before any stratigraphic test or core hole or wildcat or exploratory well with a projected depth greater than 11,000 feet may be commenced, two contiguous governmental quarter sections (which may lie in either one or two governmental sections) shall be designated as the 320-acre drilling unit for such well. Such designation shall be made by the operator or operators of the two governmental quarter sections described in the designation, and the designation shall be subject to administrative approval by the board.

(5) A stratigraphic test or core hole or wildcat or ex-ploratory well with a projected depth greater than 11,000 feet

shall be located no closer than 660 feet to any governmental quarter section line which is an exterior boundary of a 320-acre drilling unit and only one well shall be permitted to produce from the same reservoir within the same 320-acre drilling unit.

(6) A 320-acre drilling unit is defined by the board as two contiguous regular governmental quarter sections or a number of lots that approximate two contiguous quarter sections and consisting of 320 acres more or less.

(7) Unless a special exception is granted after notice and hearing, no oil well with a projected depth of 6,000 feet or less shall be located closer than 330 feet to any legal subdivision line, and only one well shall be permitted to produce from the same reservoir within the same legal subdivision.

(8) No oil well with a projected depth between 6,000 feet and 11,000 feet shall be located closer than 660 feet to any governmental quarter section line, and only one well shall be permitted to produce from the same governmental quarter section.

(9) Before the drilling of any oil well with a projected depth greater than 11,000 feet may be commenced, two contiguous governmental quarter sections (which may lie in either one or two governmental sections) shall be designated as the 320-acre drilling unit for such well. Such designation shall be made by the operator or operators of the two governmental quarter sections described in the designation, and the designation shall be subject to administrative approval by the board.

(10) An oil well with a projected depth greater than 11,000 feet shall be located no closer than 660 feet to any governmental section or quarter section line which is an exterior boundary of the 320-acre drilling unit and only one well shall be permitted to produce from the same reservoir within the same 320-acre drilling unit.

(11) Unless a special exception is granted after notice of hearing, no gas well shall be located closer than 990 feet to any governmental section line, and only one well shall be permitted to produce from the same reservoir within the same governmental section. (History: 82-11-111 MCA; IMP, 82-11-124 and 82-11-201 MCA, Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.703 HORIZONTAL WELLS (1) Unless otherwise modified herein, the requirements of ARM 36.22.702 shall apply to hori-zontal wells.

(2) For the purpose of determining the size of drilling units and the permissible location of horizontal wells, "pro-jected depth" as used in ARM 36.22.702 means the projected true vertical depth of the deepest horizontal drainhole.

(3) A horizontal well meets the location requirements of ARM 36.22.702 if the point where the well bore first penetrates the common source of supply, the horizontal drainhole end point, and every part of the well bore lying between these points meet the minimum distance requirements from the drilling unit boundaries that would apply to a vertical well of the same projected depth, regardless of the surface location proposed.

(4) The operator of a horizontal well may designate an optional drilling unit, which must consist of two, three, or four contiguous drilling units of the size and shape otherwise authorized for a vertical well of the same projected depth. The operator must receive administrative approval of the optional drilling unit before starting to drill the horizontal drainhole. Minimum distance requirements from drilling unit boundaries that would apply to the contiguous drilling units apply to the optional drilling unit, except that such requirements do not apply to the common boundary of the contiguous units. Any operator designating an optional drilling unit under this section must apply for proper well spacing within 90 days after the completion of a well capable of production.

(5) Within 30 days after completion of a horizontal well, the operator must file with the board a complete and accurate directional survey showing the location, direction, and length of each horizontal drainhole and demonstrating that all drainholes are at locations permitted by this rule or by a board location exception order.

(6) In those cases where a horizontal well is drilled following an initial vertical penetration of the target horizon, or the horizontal well includes more than one horizontal drainhole, the completion report submitted under ARM 36.22.1011 must adequately describe each well path.

(History: Sec. 82-11-111 MCA; IMP, Sec. 82-11-124 and 82-11-201 MCA; NEW, 1992 MAR p. 654, Eff. 4/l/92; AMD, 1995 MAR p. 285, Eff. 2/24/95.)

Sub-Chapters 8 and 9 Reserved

Sub-Chapter 10

Drilling

36.22.1001 ROTARY DRILLING PROCEDURE Unless altered, modified, or changed by the board for particular common sources of supply, the following rules apply to drilling wells with rotary tools.

(1) Suitable and safe surface casing must be used in all wells. Sufficient surface casing must be run to reach a depth below all fresh water located at levels reasonably accessible for agricultural and domestic use. Surface casing must be set in or through an impervious formation and must be cemented by the pump- and-plug or displacement method with sufficient cement to circulate to the top of the well. If it becomes necessary to run a production string, such string must be cemented by the pump-and-plug method or any other method approved by the board administrator and must be properly tested by the pressure method before cement plugs are drilled.

(2) All cemented casing strings shall stand under pressure until the cement has reached a compressive strength of 300 pounds per square inch; provided, however, that no tests shall be commenced until the cement has been in place for at least 8 hours. The requirement "under pressure" as used herein will be complied with if one float valve is used or if pressure is otherwise held.

(3) Blowout prevention equipment must be installed and maintained on all wells in accordance with the requirements of ARM 36.22.1014.

(4) Freshwater-based drilling fluid or air must be used when drilling the surface hole prior to setting surface casing and when drilling through freshwater aquifers anywhere within the state of Montana. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/3l/72; AMD, Eff. 7/5/75; AMD, 1982 MAR p. 1205, Eff. 6/18/82; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1002 CABLE DRILLING PROCEDURE (1) Before commencing to drill a well, the operator must construct proper and adequate slush pits according to the plan in the application for permit to drill approved by the board.

(2) If cable tools are used, sufficient casing must be set to protect all fresh water located at levels reasonably accessible for agricultural and domestic use, and, before drilling below the casing point proceeds, such casing must be tested by bailing to ensure a shutoff.

(3) Natural gas that may be encountered in a substantial quantity in any section of a cable-tool-drilled hole above the ultimate objective must be shut off with reasonable diligence and confined to its original source. Any gas escaping from the

well during drilling operations must be conducted a safe distance from the well site.

(4) A casing program adopted for cable-tool-drilled wells must be so planned as to protect any potential oil- or gas- bearing horizons penetrated during drilling from infiltration of injurious waters from other horizons, to prevent the migration of oil or gas from one horizon to another, and to prevent migration of oil, salt water, or other contaminants into freshwater aquifers.

(5) Freshwater-based drilling fluid must be used when drilling the surface hole prior to setting surface casing and when drilling through freshwater aquifers anywhere within the state of Montana. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, Eff. 7/5/75; AMD 1982 MAR p. 1205, Eff. 6/18/82; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1003 VERTICAL DRILLING REQUIRED - DEVIATION

(1) All wells shall be so drilled that the horizontal distance between the bottom of the hole and the location at the top of the hole shall be at all times at a practical minimum unless authorization for controlled directional drilling has been obtained.

(2) Before beginning controlled directional drilling, except for the purpose of straightening the hole, sidetracking junk, or correcting mechanical difficulties, where the intent is to direct the bottom of the hole away from the vertical, notice of the intention to do so shall be filed with the board on Form No. 2 and administrative approval obtained. Such notice shall state clearly the depth, exact surface location of the well bore, proposed direction of deviation, and proposed horizontal distance between the bottom of the hole and the surface location. If approval is obtained, the owner shall file with the board within 30 days after the completion of the work an accurate and complete copy of the survey made. Administrative approval for controlled directional drilling is not available where the proposed bottomhole location is not in compliance with applicable field or statewide well locations rules. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1004 DUAL COMPLETION OF WELLS (1) No well may be dually completed or dually recompleted without first notifying the board on Form No. 2 and each offset operator in writing at least 10 days prior to the commencement of such completion or recompletion operation, and without approval of the petroleum engineer or his authorized agent obtained after such 10 days. If within such 10 days any offset operator files with the board a written protest to the proposal, the matter shall be

immediately set down for hearing after notice, and the well shall not be completed or recompleted until permitted by order of the board after such hearing (History: 82-11-111, MCA; IMP, 82-11-l23 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1005 DRILLING WASTE DISPOSAL AND SURFACE RESTORATION (1) The operator of a drilling well must contain and dispose of all solid waste and produced fluids that accumulate during drilling operations so as not to degrade surface water, groundwater, or cause harm to soils. Said waste and fluids must be disposed of in accordance with all applicable local, state and federal laws and regulations.

(2) When a salt-based or oil-based drilling fluid is used to drill a well located within a floodplain, as defined by ARM 36.15.101, or in irrigated cropland, drilling waste and produced fluids that accumulate during drilling operations must be disposed of off-site in a manner allowed by local, state, and federal laws and regulations unless an alternative on-site disposal method is approved in writing by the board administrator.

(3) The operator of a drilling well must construct, close, and restore any reserve pits in a manner that will prevent harm to the soil and will not degrade surface waters or groundwater. When a salt-based or oil-based drilling fluid is used, the reserve pit must be lined with a synthetic liner approved by the board administrator.

(4) Within 10 days after the cessation of drilling or completion operations, all hydrocarbons must be removed from earthen pits used in association with drilling or completion operations or such pits must be fenced, screened, and netted. Such pits that contain water with more than 15,000 parts per million total dissolved solids or salt-based drilling fluids must be fenced within 90 days after the cessation of drilling and completion operations.

(5) Earthen pits used in association with drilling and completion operations must not be used for the disposal of any additional fluids or materials after the cessation of drilling and completion operations.

(6) All earthen pits used in association with drilling and completion operations must be closed and the surface restored according to board specifications within one year after the cessation of drilling operations. Upon written application by the operator, an exception to the one-year pit closure requirement may be granted in writing by the board administrator upon a showing that:

(a) no dumping or disposal of waste or fluids in the pit will occur; and

(b) delayed closure of the pit will not present a risk of contamination to soils or water or a hazard to animals or

persons. (History: 82-11-111, MCA: IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, Eff. 7/5/75; AMD, 1992 MAR p. 654, Eff. 4/1/92).

Rules 36.22.1006 through 36.22.1010 Reserved

NEXT PAGE IS 36-4939

36.22.1011 WELL COMPLETION AND RECOMPLETION REPORTS (1) Within 30 days after the completion of a well drilled for oil or gas (except a wildcat or exploratory well), a completion report shall be filed with the board on Form No. 4.

(2) Within 30 days after the completion of any repair, deepening, reconditioning, reperforating, or recompletion, a detailed report of work done and results obtained shall be filed with the board on Form No. 2. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, Eff. 7/5/75.)

36.22.1012 SAMPLES OF CORES AND CUTTINGS (1) Any owner or operator drilling or deepening a well for oil or gas must deliver prepaid to the board at the office stipulated on the approved permit to drill a complete and representative sample of the core chips and a dry, washed set of cuttings within a period of 6 months after the completion or abandonment of such well.

(2) A complete and representative sample of core chips and a dry, washed set of cuttings from a stratigraphic well must be delivered prepaid to the board at the office stipulated on the approved permit to drill within 3 years of the completion of the stratigraphic well.

(3) The board may at its discretion relieve any owner or operator from the obligation to so deliver samples of core chips or cuttings. (History: 82-11-111, MCA IMP, 82-11-125, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1982 MAR p. 2149, Eff. 12/17/82; AMD, 1983 MAR p. 1195, Eff. 8/26/83; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1013 FILING OF COMPLETION REPORTS, WELL LOGS, ANALYSES, REPORTS, AND SURVEYS (1) The owner or operator must run an electrical, radioactivity, or similar petrophysical log or combination of logs sufficient to determine formation tops from total depth to the base of the surface casing unless waived by the board administrator.

(2) Within 30 days after the completion, reworking, or abandonment of any well drilled to known productive horizons within a delineated field, the operator or owner must transmit to the board three copies of Form 4, four copies of Form 2, and two copies of all well logs; drill stem test survey reports; sample and core description logs, analyses, reports, water analyses; and all other logs, surveys, and reports run or made.

(3) In the case of a wildcat or exploratory well, the owner or operator must transmit to the board within 6 months after completion or abandonment three copies of Form 4, four copies of Form 2 and two copies of all logs, surveys, reports, and analyses run or made as described in subsection (2). In the case of a stratigraphic well, said information must be sent to the board within three years from the date of completion.

(History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1982 MAR p. 2149, Eff. 12/17/82; AMD, 1983 MAR p. 1195, Eff. 8/26/83; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1014 BLOWOUT PREVENTION AND WELL CONTROL EQUIPMENT (1) Unless otherwise provided for by the permit to drill issued under ARM 36.22.601 and ARM 36.22.602, or by board order issued after public notice and hearing, the owner must provide blowout preventers and well control equipment on all wells in accordance with the following rules.

(a) For wells in areas of abnormal or unknown formation pressures, proper blowout preventers must consist of hydraulically-operated single or double ram-type preventers with at least one pipe ram and one blind ram, and an annular-type preventer. Additional equipment must include upper and lower kelly cocks; mud pit level indicators with alarms and/or flow sensors and alarms; and choke manifolds, kill lines, and other well control equipment sufficient to handle all pressure kicks. Accumulators must maintain a pressure capacity reserve at all times to provide for the operation of the hydraulic preventers and valves with no outside source of pressure.

(b) For development wells and in all areas of known formation pressures, blowout prevention and well control equipment must be installed.

(c) The owner must maintain all blowout prevention and well control equipment in good working order.

(2) Drilling spools for blowout preventer stacks must meet the following minimum specifications:

(a) for working pressures rated at 3,000 or 5,000 pounds per square inch (psi), flanged, studded, or clamped side outlets of no less than 2 inches nominal diameter.

(b) for working pressures rated at 10,000 and 15,000 psi, one 2-inch side outlet and one 3-inch side outlet.

(3) The rated working pressure of all blowout preventers and well control equipment must equal or exceed the maximum anticipated pressure to be contained at the surface.

(4) Wellhead outlets must not be used for choke or kill lines in areas of abnormal or unknown formation pressures. Such outlets may be employed for auxiliary or back-up connections to be used only if the primary control system fails.

(5) The owner or operator must test blowout prevention and well control equipment according to the following standards.

(a) Ram-type blowout preventers and well control equipment, including casing, must receive initial pressure testing to the least of the manufacturer's fullworking pressure rating of the equipment, 50 percent of the minimum internal yield pressure of any casing subject to test, or one psi per foot of the last

casing string depth. Annular-type blowout preventers must receive initial pressure testing in conformance with the manufacturer's published recommendations.

(b) If, for any reason, a pressure seal is disassembled, the owner or operator must test the full working pressure of that seal before resuming drilling operations. However, if the affected seal is an integral part of the blowout preventer stack, the owner or operator may obtain permission from a board representative to proceed without testing the seal.

(c) In addition to the initial pressure tests, the owner or operator must check ram- and annular-type preventers for physical operation each trip but not more than once each twenty-four (24) hour period.

(d) All blowout preventer components, with the exception of annular preventers, must be tested monthly to the least of 50 percent of the manufacturer's rated pressure, the maximum anticipated pressure to be contained at the surface, one psi per foot of the last casing string depth, or 70 percent of the minimum internal yield pressure of any casing subject to test.

(e) The owner or operator must note all tests of blowout preventer and well control equipment on the driller's log, which must be made available to the board upon request. The board may require the operator or the drilling contractor to provide a signed and sworn affidavit attesting to the sufficiency of the blowout prevention equipment and any testing of such equipment.

(6) The owner or operator must submit a schematic diagram of the proposed blowout prevention and well control equipment with the application for permit to drill.

(7) In areas where hydrogen sulfide or sour gas may be encountered, the following additional equipment and precautions are required:

(a) a blowout preventer closing unit located in a safe place easily accessible to rig personnel.

(b) a remote auxiliary choke control panel to operate the choke manifold set up at a safe distance upwind from the rig floor.

(c) a remote kill line sufficient to permit use of an auxiliary high-pressure pump.

(d) the placement of the drilling fluid inlet line to the degasser close to the drilling fluid discharge line from the mud/gas separator.

(e) provisions to flare toxic gases with an adequate degasser, discharge lines, check valves, a vertical flare stack, and a gas ignition system.

(f) provisions for personnel training; personnel protective equipment including sensors, alarms, and breathing equipment; warning signs; and wind direction flags to safeguard against injury or death. (History: 82-11-111, MCA; IMP, 82-11-121, 82-11-123 and 82-11-124, MCA; NEW, 1992 MAR p. 654, Eff. 4/1/92.

NEXT PAGE IS 36-4961

Sub-Chapter 11

Safety

36.22.1101 FIRE HAZARD PREVENTION (1) Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least 150 feet from the well site, tanks, and reservoirs. All waste oil shall be burned or disposed of in a manner to avert creating a fire hazard. The owner shall take all available precautions to prevent any oil or gas well from blowing open and shall take immediate steps and exercise due diligence to bring under control any "wild" or burning oil or gas well. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1102 FIRE WALLS REQUIRED (1) When it is deemed necessary by the board to protect life, health, or property, the board may require any lease tanks or oil storage tanks to be surrounded by an earthen dike which shall have a capacity of 1 1/2 times the capacity of the tank or tanks it surrounds and which dike shall be continually maintained; and the reservoir within shall be kept free from vegetation, water, or oil. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1103 NOTIFICATION AND REPORT OF EMERGENCIES AND UNDESIRABLE INCIDENTS (1) The owner or operator of a facility must give immediate notice by telephone to an authorized representative of the board and a written report to the board administrator within five working days of any of the following emergencies:

(a) the spill, leak, or release of more than 50 barrels of oil or water containing more than 15,000 parts per million (ppm) total dissolved solids (TDS);

(b) the spill, leak, or release of any amount of oil or of water containing more than 15,000 ppm TDS that enters surface water or groundwater;

(c) the spill, leak, or release of any amount of produced water that degrades surface water or groundwater;

(d) the release of any amount of gas with concentrations of 100 or more ppm hydrogen sulfide that is not immediately controlled;

(e) any fire; and

(f) any blowout.

(2) The owner or operator must file a written report with the board administrator within five working days after any of the following:

(a) the spill, leak, or release of ten (10) or more barrels of oil or water containing more than 15,000 ppm TDS that

is not completely contained within tank firewalls; and

(b) the escape or release of over 3,000 MCF of gas.

(3) The written and telephone reports referred to in parts (1) and (2) of this rule must include the following information:

(a) the location of the facility involved in sufficient detail that the site of the emergency can be readily located on the ground;

(b) an estimation of the quantity of oil, water or gas lost, destroyed, or permitted to escape;

(c) steps that have been or will be taken to remedy the situation and the time schedule for each; and

(d) any injuries or property damage.

(4) The owner or operator must file with the board administrator any supplemental report that may be required by the board in connection with any individual emergency or undesirable incident.

(5) The reporting required by this rule is in addition to all other reporting required by other applicable local, state, and federal laws and regulations. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1104 CONTROL AND CLEANUP (1) The owner or operator must promptly control and clean up any leak, spill, escape, or discharge, regardless of the amount of oil, produced water, water containing more than 15,000 ppm TDS, or gas involved. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; NEW, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1105 SOLID WASTE (1) Solid waste associated with oil and gas exploration or production activities must be disposed of according to all applicable local, state, and federal laws and regulations. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; NEW, 1992 MAR p. 654, Eff. 4/1/92.)

NEXT PAGE IS 36-4981

Sub-Chapter 12

Production

36.22.1201 SURFACE EQUIPMENT (1) Wellhead equipment shall be installed and maintained in satisfactory condition so that static bottom-hole pressures and operating gas-oil ratios may be obtained at any time. Valves shall be installed so that pressure can be readily obtained on both casing and tubing. However, exceptions may be granted by the petroleum engineer or his authorized agent when warranted by operating practices. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1202 IDENTIFICATION (1) The owner shall permanently mark all wells, producing properties, and tanks in a conspicuous place with his name, lease name, and, as to a well, number of the well and legal description of the well. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72.)

36.22.1203 CHOKES REQUIRED (1) All flowing oil wells shall be equipped with chokes or other adequate control equipment to insure proper and safe operations during normal production practices. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1204 SEPARATORS REQUIRED (IS HEREBY REPEALED) (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; REP, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1205 VACUUM PUMPS PROHIBITED (1) The use of vacuum pumps for the purpose of putting a vacuum on any gas or oil-bearing stratum is prohibited; however, the board may upon application and for good cause shown permit the use of vacuum pumps. (History: 82-11-111, MCA; IMP, 82-11-124, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1206 TUBING REQUIRED (1) All flowing oil wells shall be equipped with and produced through tubing, unless the well is a dual completion. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1207 EARTHEN PITS AND OPEN VESSELS (1) Waste oil, oil sludge, tank bottoms, merchantable oil, petroleum products, hazardous wastes, or hazardous or deleterious substances must not be stored, disposed of, or retained in earthen storage pits or in open vessels.

(2) The owner or operator may make temporary use of an unlined earthen pit to retain oil or water in the event of an emergency or to retain fluids generated in recompletion or

workover operations. The oil, water, and contaminants must be removed from the emergency, recompletion or workover pit within forty-eight (48) hours and disposed of in a manner that will not degrade surface water or groundwater or cause harm to soils. An owner or operator must apply for and obtain a permit under ARM 36.22.1227 to construct or operate a permanent emergency pit. Repeated use of an earthen pit or pits to contain oil or water spills from an improperly or inadequately designed or maintained production facility does not constitute an "emergency" for purposes of this rule. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1208 PRODUCING FROM DIFFERENT POOLS THROUGH THE SAME CASING No well drilled after January 1, 1954, shall be permitted to produce either oil or gas from different pools through the same string of casing without first receiving written permission from the board, which may require at the discretion of the board notice and hearing. (History: 82-11-
111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

Rules 36.22.1209 through 36.22.1212 Reserved

36.22.1213 RESERVOIR OR POOL SURVEYS (1) As directed by the board, surveys shall be made of the reservoirs or pools in this state containing oil and gas. These surveys shall be thorough and complete and shall be made by the operator or his agent under the supervision of agents of the board. The condition of the reservoirs or pools containing oil and gas, and the practices and methods employed by the operators shall be investigated.

(2) The source of crude oil and natural gas, the pressure of the reservoir as an average, the areas of regional or differential pressure, stabilized gas-oil ratios and water-oil ratios, and the producing characteristics of the field as a whole and of the individual wells within the field shall be specifically included.

(3) Provided, however, the board will accept from field engineering committees (petroleum engineering, geological, and statistical groups) or persons engaged in the petroleum industry in such an advisory capacity a periodic record of the physical behavior of the oil and gas reservoirs of Montana. These factual data shall be gathered and arranged in such fashion as to permit rapid evaluation by the board of the oil and gas recovery efficiency of the individual reservoir or pools. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, l982 MAR p. l398, Eff. 7/16/82.)

36.22.1214 SUBSURFACE PRESSURE TESTS Within 30 days following the completion of each well in any pool whether such well produces oil or gas or both, the owner of such well shall make a subsurface pressure test on such well and shall report the results thereof to the board on Form No. 11 within 20 days after such test is made. Each such well shall remain completely shut in for at least 24 hours prior to the test. The subsurface determination shall be obtained as close as reasonably possible to the midpoint of the productive section of the reservoir. Further, the board will require periodic subsurface pressure measurements on a sufficient number of wells in any pool to provide adequate data for establishing maximum efficient rates of production (M.E.R.). (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1215 STABILIZED PRODUCTION TEST Within 60 days following the completion or recompletion of an oil well, the operator shall file with the board's petroleum engineer at its Billings office the results of a stabilized production test of at least 72 hours duration showing the average daily oil production and average daily gas production during the test period. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; NEW, 1978 MAR p. 1425, Eff. 10/13/78.)

36.22.1216 GAS-OIL RATIO TESTS Within 30 days following the completion and within 30 days following each recompletion of each well producing oil and either gas or casinghead gas or both, the owner of such well shall make a gas-oil ratio test of such well and the results of such test shall be reported to the board on Form No. 11 within 20 days after the test is made. Also, thereafter, each operator shall make a gas-oil ratio test at such other time or times as the board may hereafter designate, and similarly report the results of each such test within the time specified. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1217 WATER PRODUCTION REPORT The owner of each well which produces both oil and water shall separately determine the amount of water produced along with the oil each month and shall each month report to the board the quantity of such water produced along with the oil. Such report shall be made on Form No. 6 by the last day of the succeeding month. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/
72; AMD, 1984 MAR p. 931, Eff. 6/15/84.)

36.22.1218 GAS TO BE METERED All gas when produced and sold shall be metered and reported to the board at 14.73 PSIA at 60^{o} Fahrenheit, unless otherwise permitted by the board. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1219 GAS WASTE PROHIBITED After completion of a gas well, no gas shall be permitted to escape into the air, except that required for periodic testing or cleaning of the well bore. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1220 ASSOCIATED GAS FLARING LIMITATION - APPLICATION TO EXCEED - BOARD REVIEW AND ACTION (1) If the average daily gas production exceeds 100 MCFG and the operator intends to flare or otherwise waste the associated gas, the well may not produce more than an average of 100 MCFG per day each calendar month after the 60 day test required by Rule 36.22.1215 until such time as further relief may be granted by the board pursuant to subsections (2) and (3).

(2) If the operator wishes to flare more than an average of 100 MCFG per day each calendar month, the operator must submit with the production test results a statement justifying the need to flare or otherwise waste more than that amount.

The statement should include such information as a gas analysis, estimated gas reserves, proximity of the well to a market, estimated gas price at the nearest market, estimated cost of marketing the gas, reinjection potential or other conservation-
oriented disposition alternatives, amount of gas used in lease operations, and any other information pertinent to a determination of whether marketing or not marketing or otherwise conserving the associated gas is economically feasible.

(3) The petroleum engineer will review the justification statement with the board at its next regularly scheduled meeting. The board may elect to:

(a) docket a hearing for the operator to show further cause why it should be allowed to flare or otherwise waste more than an average of 100 MCFG per day each calendar month;

(b) restrict production until the gas is marketed or otherwise beneficially utilized; in which case the operator may docket a hearing on his own behalf to seek further relief; or

(c) take any other action the board deems appropriate in the circumstances. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; NEW, 1978 MAR p. 1425, Eff. 10/13/78; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1221 BURNING OF WASTE GAS REQUIRED (l) All gas vented to the atmosphere at a rate exceeding 20 MCF per day for a period in excess of 72 hours shall be burned. All operators of wells venting any quantity of gas containing 20 parts per million or more of H_2S shall insure that workable ignitor systems are installed on such wells and take whatever other steps that may be necessary to insure that all such waste gas is burned and not vented to the atmosphere. No variance from this rule is allowed without written authorization of the board.

(2) Any operator seeking a variance from this rule must submit a production test and a statement justifying the need for a variance. The statement should include such information as potential human exposure; relative isolation of location; restriction of access to location such as fence, warning signs, etc.; low gas volume; and low BTU content.

(3) The board staff will review the justification statement with the board at its next regularly scheduled hearing. The board may elect to grant or deny the application or schedule a hearing thereon. An operator whose application for variance is denied without a hearing may request a hearing. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; NEW, 1984 MAR p. 1042, Eff. 7/13/84.)

36.22.1222 HYDROGEN SULFIDE GAS (1) The owner or operator of an oil or gas well drilled after the effective date of this rule that produces more than 20 MCF of gas per day containing more than 20 parts per million hydrogen sulfide must submit a

hydrogen sulfide gas report to the board with Form 4 after the completion of the well.

(2) The owner or operator of an oil or gas well drilled and completed prior to the effective date of this rule that produces more than 20 MCF of gas per day containing more than 20 parts per million hydrogen sulfide must submit a hydrogen sulfide gas report with Form 2 within 12 months after the effective date of this rule.

(3) When more than one well produces casinghead gas into a common production facility, the hydrogen sulfide gas report required by subsections (1) and (2) of this rule may be submitted for the facility in lieu of the submission of a report for each well that produces into the facility.

(4) The hydrogen sulfide gas report required under this rule must include the following information:

(a) the name and location of the well(s);

(b) the name and address of the operator or owner of the well(s);

(c) the name(s) and depth(s) of the hydrogen-sulfide-producing geologic formation(s); and

(d) a gas analysis that indicates the percent concentration of methane, hydrogen sulfide, carbon dioxide, ethane, butane/pentanes, and other constituents.

(5) The owner or operator of a production facility with the potential of accumulating hydrogen sulfide gas in concentrations of 100 parts per million or more must take measures to restrict and warn against access to the facility and must install a wind sock and hydrogen sulfide warning signs at such facility. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; NEW, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1223 FENCING, SCREENING, AND NETTING OF PITS

(1) Open storage vessels, earthen pits, or ponds that contain oil must be fenced, screened, and netted.

(2) Open receptacles, earthen pits, or ponds that contain produced water with more than 15,000 parts per million total dissolved solids must be fenced.

(3) This rule does not apply to earthen pits used solely for the purpose of drilling, completing, recompleting, working over, or plugging a well. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; NEW, 1992 MAR p. 654, Eff. 4/1/92.)

Rules 36.22.1224 and 36.22.1225 Reserved

NEXT PAGE IS 36-4993

36.22.1226 DISPOSAL OF WATER (1) Produced water containing 15,000 parts per million (ppm) or less total dissolved solids (TDS) may be retained and disposed of in any manner allowed by law that does not degrade surface waters or groundwater or cause harm to soils.

(2) Produced water containing more than 15,000 ppm TDS must be disposed:

(a) by injection into an approved Class II injection well; or,

(b) into board-approved lined or unlined earthen pits if the operator can show on permit application Form 23 that the volume of water to be disposed of per pit will not exceed five (5) barrels per day on a monthly basis and the produced water will not degrade any existing surface water or groundwater source or cause harm to soils.

(3) Produced water containing more than 15,000 ppm TDS may be temporarily retained in storage tanks or board-approved, lined earthen pits or ponds prior to injection. The earthen pits or ponds must be constructed and maintained in accordance with ARM 36.22.1227.

(4) Discharges of produced water must be in compliance with all applicable local, state, and federal water quality laws and regulations. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1227 EARTHEN PITS AND PONDS (1) No person shall construct or use an earthen pit or pond in association with a production facility without first obtaining a permit from the board. Such earthen pits or ponds that exist prior to the effective date of this rule must be permitted or closed and restored according to board specifications within 12 months after the effective date of this rule.

(2) Earthen pits or ponds that receive produced water containing more than 15,000 parts per million (ppm) total dissolved solids (TDS) in volumes greater than five (5) barrels per day on a monthly basis must:

(a) be constructed in cut material or at least 50 percent below original ground level;

(b) be lined with an impermeable synthetic liner, or, if the bottom of the pit or pond is underlain by porous, permeable, sharp, or jagged material, the pit or pond must be lined with at least 3 inches of compacted bentonite prior to setting the impermeable synthetic liner;

(c) be constructed above the high water table;

(d) not be located in a floodplain as defined by ARM 36.15.101, or in irrigated cropland;

(e) be bermed or diked and have at least 3 feet of freeboard at all times between the surface of the water and the top of the banks, berms, or dikes of the pit or pond;

(f) be fenced, screened, and netted in accordance with ARM 36.22.1223; and

(g) not be used for disposal of hazardous wastes or hazardous or deleterious substances.

(3) The board administrator may impose more restrictive earthen pit or pond construction or operation requirements as may be necessary to prevent degradation of water or harm to soils.

(4) Sections (2)(a) through (2)(f) of this rule do not apply to emergency pits as allowed by ARM 36.22.1207, nor does this rule apply to temporary earthen pits, including reserve pits, approved by the board under a valid permit to drill unless such pits remain open and unrestored for more than 12 months after the cessation of drilling or completion operations. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1228 DISPOSAL BY INJECTION (IS HEARBY REPEALED) (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; REP, 1997 MAR p. 1589, Eff. 9/9/97.)

36.22.1229 WATER INJECTION AND GAS REPRESSURING (1) The owner or operator of any well may inject water or gas under pressure into a formation containing oil or gas for the purpose of obtaining oil or gas from the reservoir upon application, hearing, and approval by the board.

(2) Wells used for the injection of water or gas into a producing formation shall be cased with sound casing so as not to permit leakage, and the casing cemented in such manner as to protect oil, gas, or fresh water reservoirs. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1230 APPLICATION - CONTENTS AND REQUIREMENTS (IS HEARBY REPEALED) (History: 82-11-111, MCA; IMP, 82-11-123 and Sec. 82-11-124, MCA; Eff. 12/31/72; REP, 1997 MAR p. 1589, Eff. 9/9/97.)

36.22.1231 NOTICE OF APPLICATION - OBJECTIONS (1) Notice of application for enhanced recovery or gas repressuring shall be given by the applicant by mailing or delivering a copy of the application to each operator of drilling or producing wells or of wells which have produced within one-half mile radius of the proposed input well or wells. Such notice shall be mailed or delivered on or before the application is mailed to or filed with the board.

(2) Objections or complaints stating the reasons why the proposed plan as contained in the application may cause damage to oil, gas, or fresh water reservoirs must be filed within 10

days after the application is filed. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1997 MAR p. 1589, Eff. 9/9/97.)

36.22.1232 BOARD AUTHORIZATION (1) No water flood or gas injection program shall be instituted until the same has been regularly authorized by the board.

(2) The board will make such special orders and rules for the individual case as the conditions may justify. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1233 NOTICE OF COMMENCEMENT OF DISCONTINUANCE- PLUGGING OF ABANDONED WELLS (IS HEARBY REPEALED)(History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; REP, 1997 MAR p. 1589, Eff. 9/9/97.)

36.22.1234 RECORDS REQUIRED (IS HEARBY REPEALED) (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; REP, 1997 MAR p. 1589, Eff. 9/9/97.)

Rules 36.22.1235 through 36.22.1239 Reserved

36.22.1240 REPORT OF WELL STATUS CHANGE (1) The owner or operator of any oil, gas, service, or injection well must report the change in status of such well from active to inactive or from producing to non-producing. Said owner or operator must report the return of a well to active or producing status if such well was idle for six (6) or more consecutive months. If the owner or operator expects that the well will be returned to an active or producing status within six (6) months of the date idled, filing of the report may be deferred until the end of such six (6) month period, and the report need not be filed if the well is returned to service during that period. Such reports are due within thirty (30) days of the date of status change or within thirty (30) days after the end of the deferred reporting period, and must be submitted on Form No. 2. Well status reports shall include the date of and reason for the well status change. A report describing a change to inactive or non-producing status must outline the operator's plan and a time frame for returning the well to active or producing status, plugging, or other intended action.

(History: 82-11-111 MCA; IMP, 82-11-111, 82-11-121, 82-11-123, and 82-11-124 MCA; NEW, 1993 MAR p. 152, Eff. 7/1/93.)

36.22.1241 SERVICE COMPANY REPORTS (1) When a service company other than the drilling contractor cements, chemically treats, fractures, perforates, acidizes, plugs, or performs any act designed to change the productivity of a well or reservoir, the service company shall furnish the board at its district office reports concerning such work within 30 days after its completion.

(2) When such operations as set forth in subsection (1) are performed on wildcat or exploratory wells, service company reports need not be submitted to the board for a period of 6 months following completion of the well, and in such instances the responsibility of submitting such reports shall be that of the operator of the well, except that all service company reports covering all cementing operations other than squeezing must be submitted to the board at its district office within 30 days after the work is performed. (History: 82-11-111 MCA; IMP, 82-11-124 MCA; Eff. 12/31/72; AMD, 1992 MAR p. 654, Eff. 4/1/92.)

36.22.1242 REPORTS BY PRODUCERS - TAX REPORT - TAX RATE (1) Each owner or operator of an oil or gas well, or any other well (except an injection well reported on Form No. 5), shall file or cause to be filed with the board on or before the last day of each month following the month being reported a report on Form No. 6 containing all information required by said form and accurately reporting the status of each well thereon as of the last day of the month reported.

(2) The privilege and license tax on each barrel of crude petroleum and each 10,000 cubic feet of natural gas produced, saved, and marketed, or stored within the state or exported therefrom shall be 100 per cent of the rate authorized in 82-11-131, MCA, (3/10ths of 1%) of the market value thereof. This rule is effective on all crude petroleum and natural gas produced on and after July 1, 1995. (History: 82-11-111, MCA, IMP, 82-11-123, 82-11-131, and 82-11-133, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1982 MAR p. 2149, Eff. 12/17/82; AMD, 1983 MAR p. 1195, Eff. 8/26/83; AMD, 1986 MAR p. 1384, Eff. 8/15/86; AMD, 1992 MAR p. 654, Eff. 4/1/92; AMD, 1993 MAR p. 152, Eff. 7/1/94; AMD, 1995 MAR p. 1055, Eff. 6/16/95.)

36.22.1243 REPORTS FROM TRANSPORTERS, REFINERS, AND GASOLINE OR EXTRACTION PLANTS (1) All transporters of crude oil shall make monthly reports to the board on Form No. 7. All refiners of crude oil shall make monthly reports to the board on Form No. 8. All transporters of gas shall make monthly reports to the board on Form No. 9. All operators of gasoline or other extraction plants shall make monthly reports to the board on Form No. 10. Such forms shall contain all information required therein and shall be filed with the board on or before the last day of each month covering the preceding month. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1984 MAR p. 931, Eff. 6/15/84.)

36.22.1244 PRODUCER'S CERTIFICATE OF COMPLIANCE (1) A certificate of compliance for the transportation of oil and gas from a lease is required by the board to be filed on Form No. 13 in accordance with instructions thereon. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1245 ILLEGAL PRODUCTION (1) No person shall produce any crude oil, natural gas, or waste oil from any spacing unit or ool in this state except in accordance with the rules and orders of the board. (History: 82-11-111, MCA; IMP, 82-11-148, MCA; Eff. 12/31/72.)

Sub-Chapter 13

Abandonment, Plugging, and Restoration

36.22.1301 NOTICE AND APPROVAL OF INTENTION TO ABANDON REPORT (1) Before any work is commenced to abandon stratigraphic tests or any new well drilled in search of oil or gas, for salt water disposal, or for any other purpose related to oil field operations in which no casing has been run, other than surface pipe, the owner thereof shall give oral notice to and obtain approval from the Petroleum engineer or his authorized agent prior to commencing plugging operations. The petroleum engineer may send an authorized agent to the location specified to witness the plugging operation. Within 15 days after final abandonment, the owner shall submit to the board on Form No. 2 a subsequent report of abandonment setting forth in such report the terms and conditions of the plugging and abandonment as approved orally by the petroleum engineer or his authorized agent.

(2) Before any work is commenced to abandon any well drilled in search of oil or gas, for salt water disposal, or for any other purpose related to oil field operations in which casing has been run, except surface pipe, the owner thereof shall give written notice to the board on Form No. 2 setting forth the method of plugging, the depths and number of plugs, and any other information required under ARM 36.22.1305 and 36.22.1309. Upon approval of such notice by the petroleum engineer or his authorized agent, the owner may proceed with plugging and abandonment operations. The petroleum engineer may send an authorized agent to the location specified to witness the plugging operations. Within 15 days after final abandonment, the owner shall submit a subsequent report of abandonment as required by ARM 36.22.1309. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1302 NOTICE OF ABANDONMENT The notice of abandonment required to be given to the surface owner by Section 82-10-401, MCA, shall be mailed to said surface owner or owners at their address as shown by the last completed assessment roll in the office of the County Assessor of the county in which the land is located. The notice shall be deemed complete when deposited in the U.S. mail with proper postage affixed. The regulation shall not be applicable to a dry hole drilled for any purpose whatsoever as such situation is covered by other regulations of this board. (History: 82-10-401, MCA; IMP, 82-10-401, MCA; NEW, Eff. 12/5/74.)

36.22.1303 WELL PLUGGING REQUIREMENT The owner shall not permit any well drilled for oil, gas, salt water disposal, or any other purpose to remain unplugged after such well is no longer used for the purpose for which it was drilled or converted, except that as long as the owner has other producing wells on the lease he may hold idle a well on the same lease for possible future use, unless the board shall find that such idle well or wells are causing damage to oil or gas reservoirs or fresh water supplies. When the last well on a lease is no longer capable of production because the underlying reservoir or reservoirs are depleted and there is no possible future use for the wells on the lease in supplemental recovery operations or for disposal facilities, the operator shall within 90 days thereof commence operations to plug and abandon all wells on the lease as set forth in this sub-chapter, unless otherwise authorized by the petroleum engineer or his authorized agent. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1304 PLUGGING METHODS AND PROCEDURE (1) All abandoned wells shall be marked with a permanent monument which shall consist of a piece of pipe not less than 4 inches in diameter and not less than 10 feet in length of which 4 feet shall be above the general ground level and the remainder shall be imbedded in cement or shall be welded to the surface casing. The top of the pipe must be sealed with a screw cap, cement plug, or other approved method.

(2) The owner shall inscribe on the marker pipe by welding or other suitable method the name of the well, the location (quarter section, section, township, and range), total depth, and elevation.

(3) At the request of the surface owner of a lease on which a well is to be plugged, the requirement for a marker set forth above may be waived. In this event, a plug or seal shall be placed in the hole in such manner as not to interfere with soil cultivation or other surface use. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

36.22.1305 EXCEPTION FOR FRESH WATER WELLS (1) When the well to be plugged, as required by ARM 36.22.1303, may safely be used as a fresh water well and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water; provided, that written notification of such utilization and a release by use of Form No. 19 is secured from the landowner and filed with the board.

(2) Approval by the petroleum engineer or his authorized agent of the work done shall relieve the operator of further

responsibility. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1984 MAR p. 931, Eff. 6/15/84.)

36.22.1306 APPROVAL FOR PULLING CASING AND RE-ENTERING WELLS (1) No casing shall be pulled from any well regardless of its status without first filing Form No. 2 and securing approval of the petroleum engineer or his authorized agent.

(2) No oil or gas well which has been plugged in accordance with these rules shall be reentered for any purpose without first filing Form No. 2 and securing approval of the petroleum engineer or his authorized agent. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72; AMD, 1988 MAR p. 1980, Eff. 8/30/88.)

36.22.1307 RESTORATION OF SURFACE (1) The owner of any well drilled in search of oil and gas or the driller of a stratigraphic test or core hole or seismographic shot hole shall, as soon as weather or ground conditions permit, upon the final abandonment and completion of the plugging of any well or after a seismographic shot hole has been utilized, restore the surface of the location to its previous grade and productive capability and take necessary measures to prevent adverse hydrological effects from such well or hole, unless the surface owner agrees in writing, with the approval of the board or its representative, to a different plan of restoration. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, Eff. 12/5/74; AMD, 1982 MAR p. 1398, Eff. 7/16/82.)

36.22.1308 PLUGGING AND RESTORATION BOND (1) Except as otherwise provided in these rules, the following penal bonds are required for wells within the board's jurisdiction:

(a) The owner or operator of a single well to be drilled, or of a single existing oil, gas, or Class II injection well to be acquired, must provide a one well penal bond:

(i) in the sum of $5,000, where the permitted total depth of a drilling well, or the actual, or plugged-back, total depth of an existing well, is less than 3,500 feet; or

(ii) in the sum of $10,000, where the permitted total depth of a drilling well, or the actual, or plugged-back, total depth of an existing well, is 3,501 feet or more.

(b) The owner or operator of multiple wells to be drilled, of existing wells to be acquired, or any combination thereof, must provide a multiple well penal bond in the sum of $25,000.

(2) All bonds must be executed on board Form No. 3 or board Form No. 14, must be payable to the state of Montana, and must be conditioned for the performance of the duty to properly plug each dry or abandoned well, and to restore the surface of the location as required by board rules.

(3) The board may require an increase by appropriate rider of any bond from $5,000 to $10,000 or from $10,000 to $20,000 for a single well bond, and from $25,000 to $50,000 for a multiple well bond, when in the opinion of the board the factual situation warrants such an increase in order for any owner or operator to be in compliance with this rule. In addition to, or in lieu of, an increase in the bond amount as provided above, the board may limit the number of wells that may be covered by any multiple well bond.

(4) No new or additional wells shall be added or substituted to any bond existing prior to the effective date of this rule.

(5) The bond referred to in this rule must be in one of the following forms:

(a) a good and sufficient surety bond secured from a bonding company licensed to do business in the state of Montana; or

(b) a federally insured certificate of deposit issued and held by any bank or savings and loan association licensed to do business and located in the state of Montana.

(6) A well must remain covered by a bond, and such bond must remain in full force and effect until:

(a) the plugging and restoration of the surface of the well is approved by the board;

(b) a new bond is filed by a successor in interest and such bond is approved by the board; or

(c) notification is made by the owner or operator for the release of the well from a bond on Form No. 21, and such notification is approved by the board.

(7) A notice of intent to change operator must be filed on Form No. 20 by a proposed new owner or operator of a well within thirty (30) days of the acquisition of the well. Said notice shall include all information required thereon and must contain the endorsement of both the transferor and the transferee. The board administrator may delay or deny any change of operator request if he determines that either the transferor or the transferee is not in substantial compliance with the board's statutes, rules, or orders. The board may require an increase in any bond up to the maximum amount specified in subsection (3) of this rule as a condition of approval for any change of operator request. The transferor of a well is released from the responsibility of plugging and restoring the surface of the well under board rules after the transfer is approved by the board.

(8) Where the owner of the surface of the land upon which one or more non-commercial wells have been drilled wishes to acquire a well for domestic purposes, the bond provided by the person who drilled or operated the well will be released if the surface of the location is restored as required by board rules, and if said surface owner furnishes:

(a) proof of ownership of the surface of the land on which the well is located; and

(b) for actual beneficial water uses of 35 gallons or less per minute, not to exceed ten acre-feet per year, a copy of the notice of completion of groundwater development (Water Rights Bureau Form 602) filed with the Department of Natural Resources and Conservation (DNRC); or

(c) for actual beneficial water uses of more than 35 gallons per minute, or in excess of ten acre-feet per year, a copy of the beneficial water use permit (Water Rights Bureau Form 600) received from the DNRC; or

(d) for a domestic gas well, a written and signed inspection report from one of the board's field inspectors stating that the well is presently being beneficially used as a source of domestic natural gas; and

(e) for a domestic gas well:

(i) a federally insured certificate of deposit in the amount of $5,000 for a single well or in the amount of $10,000 for more than one well; or

(ii) a real property bond in the amount of two times the amount of the required federally insured certificate of deposit.

(9) The real property bond required in subsection (8)(e)(ii) above must be:

(a) provided on a board-approved form; and

(b) accompanied by a certified real property appraisal and abstract of title which evidence unencumbered owner equity in an amount equal to or greater than the amount of the bond required.

(10) A domestic well must be plugged, abandoned, and restored in accordance with ARM 36.22.1301 through 36.22.1304, 36.22.1306, 36.22.1307, and 36.22.1309, or transferred to a bonded operator in accordance with subsection (7) of this rule, after the well ceases to be used for domestic purposes. (History: 82-11-111, MCA; IMP, 82-11-123, MCA; Eff. 12/31/72; AMD, 1977 MAR p. 549, Eff. 9/24/77; AMD, 1982 MAR p. 855, Eff. 4/30/82; AMD, 1982 MAR p. 1398, Eff. 7/16/82; AMD, 1990 MAR p. 305, Eff. 2/9/90; AMD, 1993 MAR p. 152, Eff. 7/1/93.)

36.22.1309 SUBSEQUENT REPORT OF ABANDONMENT (1) Within 15 days after the plugging of a well, the owner thereof shall file a subsequent report of abandonment with the board setting forth in detail the method used in plugging the well. Such report shall be made on Form No. 2 and shall give a detailed account of the manner in which the abandonment or plugging work was carried out, including:

(a) the nature and quantity of materials used in plugging;

(b) the location and extent (by depths) of the plugs of different materials;

(c) records of any tests or measurements made;

(d) the amount, size, and location (by depths) of casing left in the well; and

(e) a statement of the volume of mud used.

(2) If an attempt was made to part any casing, a complete report of the method used and the results obtained must be included. (History: 82-11-111, MCA; IMP, 82-11-123 and 82-11-124, MCA; Eff. 12/31/72.)

NEXT PAGE IS 36-5045

Sub-Chapter 14

Underground Injection Control

36.22.1401 DEFINITIONS For the purposes of this sub-chapter the following are defined:

(1) "Area of review" means the area surrounding an injection well to a radius calculated according to the criteria set forth in ARM 36.22.1424 or a fixed radius of one quarter mile, or for an area project, the project area plus a radius calculated according to the criteria set forth in ARM 36.22.1425 circumscribing area the width of which is one quarter mile.

(2) "Confining zone" means the geological formation or formations, or the portion of a formation that is capable of limiting fluid movement out of the injection zone.

(3) "Corrective action" means the reworking, repair, re-plugging or other activity taken for the purposes of preventing migration of injected fluids into underground sources of drinking water through any existing wellbore that penetrates the injection zone within the area of review.

(4) "Class II injection well" means a well that:

(a) injects fluids brought to the surface in conjunction with conventional oil and gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection;

(b) is used to inject brines or other fluids brought to the surface in connection with oil or gas production or gas storage operations;

(c) is used to inject brines or other fluids described in (4)(b) which, prior to injection, have been:

(i) used on-site for purposes integrally associated with oil and gas production or storage;

(ii) chemically treated or altered to the extent necessary to make them useable for purposes integrally related to oil and gas production or storage; or

(iii) commingled with fluid wastes resulting from the treatment described in (4)(c)(ii),so long as they do not constitute a hazardous waste;

(d) is used to inject fresh water (i.e., water containing less than 10,000 mg/L total dissolved solids) from groundwater or surface water sources, added to or substituted for the brine may also be injected, as long as the only use of the water is for purposes integrally associated with oil and gas production or storage;

(e) is used to inject fluids for the enhanced recovery of oil or gas;

(f) is used to inject fluids for storage of hydrocarbons that are liquid under standard conditions of temperature and pressure; or

(g) is used to inject exempt waste fluids associated with oil or natural gas exploration and production as long as their physical state allows it, including produced water, drilling fluids, drill cuttings, rigwash, well completion fluids, work-over wastes, gas plant dehydration wastes, gas plant sweetening wastes, spent filters and backwash, packing fluids, produced sand, production tank bottoms, gathering line pigging wastes, hydrocarbon-bearing soil, and waste crude oil from primary field sites.

(5) "Class III well" means a well that injects for the extraction of minerals other than oil or gas including:

(a) mining of sulfur;

(b) in situ production of uranium or other metals other than by solution mining of conventional mines;

(c) solution mining of salts or potash.

(6) "EPA" means the United States environmental protection agency.

(7) "Injection well, new" means a class II well that began injecting after the effective date of the UIC program delegation by the EPA.

(8) "Injection well, existing" means an injection well other than a new injection well.

(9) "Injection zone" means the geological formation, group of formations, or portion of a formation that receives the in-jected fluids through a well.

(10) "Injected fluids" means any material or substance which flows or moves and is emplaced in an injection zone through a class II injection well.

(11) "Mechanical integrity" means that:

(a) there is no significant leak in the casing, tubing, or packer of the injection well; and

(b) there is no significant fluid movement into an under-ground source of drinking water (USDW) from the injection zone or from a non-USDW geologic stratum or zone of rock overlying the injection zone, or flow between adjacent USDW's through channels adjacent to the injection wellbore.

(12) "Program director" means that employee of the Montana board of oil and gas conservation (board) designated by the board as the principal administrator of the Montana underground injection control program delegated by EPA.

(13) "Produced water" means that fluid injected into an injection zone through a class II injection well, and includes liquids recovered from drilling pits, waste water from gas plants which are an integral part of production operations,

(unless those waters are classified as hazardous waste by EPA at the time of disposal), and recovered workover fluids.

(14) "UIC" means underground injection control.

(15) "Underground source of drinking water (USDW)" means an aquifer or portion thereof which supplies drinking water for human consumption, or an aquifer which contains fewer than 10,000 mg/l total dissolved solids and is not an exempt aquifer under ARM 36.22.1418.

(16) "Well" means a bored, drilled, or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

(17) "Well injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

(18) "Well plug" means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids.

(19) "Well stimulation" means several processes used to clean the wellbore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes surging, jetting, blasting, acidizing, and hydraulic fracturing.

(20) "Well monitoring" means the measurement, by on-site instruments or laboratory methods, of the quality of water of a well. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1402 UNDERGROUND INJECTION (1) No person shall commence a new injection project or construct or operate a new class II injection well, or convert an existing well to injection, whether for the purpose of disposal, or as part of an enhanced recovery project, or for the storage of liquid hydrocarbons, without a permit from the board.

(2) Existing injection wells operating under valid EPA-issued or rule authorized class II injection permits will be governed under the terms and conditions of such permits until permit expiration or plugging, whichever occurs first; provided, however, that no existing injection well may be operated in a manner inconsistent with the laws and rules of the board. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

NEXT PAGE IS 36-5049

36.22.1403 APPLICATION CONTENTS AND REQUIREMENTS (1) The application for water injection or disposal of produced water must be filed with the board showing:

(a) the location of the input well or wells;

(b) the location and mechanical condition, of all oil and gas wells including abandoned and drilling wells, dry holes, and any other wells which penetrate the injection zone within the area of review;

(c) the location of all pipelines which will be used to transport fluids to the input well for storage and injection;

(d) the formations from which wells are producing or have produced, the formations, depth, and estimated water quality of the deepest potential underground sources of drinking water, and the location and depth of any water wells in the area of review;

(e) the name, description, and depth of the injection zone(s) including a water analysis or other water quality information acceptable to the board, estimated formation pressure, and reservoir characteristics of the zone, and the name, lithologic characteristics, depth, and estimated fracture gradient of the confining zone;

(f) the elevation of the top of the oil or gas bearing formation in the input well or wells and in the wells producing from the same formation within the area of review of the project;

(g) the electric log of the input well or wells or other log or lithological information not already on file with the board;

(h) a description of the input well or wells casing and cementing program (all new wells must be cased and cemented so that migration of fluids into or between USDW's is prevented);

(i) a description and analysis of the injected fluids stating the kind, source, and the estimated amount to be injected daily, and the average and maximum anticipated injection pressure;

(j) the names and addresses of the leasehold owners, including unleased mineral owners, and the surface owners within the area of review of the input well(s).

(2) One application may be made for multiple class II injection wells in a geographic area if all wells within that geographic area have substantially the same mechanical and geologic characteristics and are operating in the same field, unit, or lease. Where appropriate, an application for underground injection of fluids on an area basis may include the information required in subsection (1) of this rule for a typical class II injection well in lieu of submitting such information on all class II injection wells in the application provided such class II injection wells have substantially the same characteristics. The area of review for such an area application is the project area plus a circumscribing area the width of which is one quarter (1/4) mile.

(3) If injected fluids will be collected and retained in pits, ponds, or other open receptacles prior to injection, the applicant must submit an application on form 23 for a permit to construct or operate a pit or pond when the application for water injection or disposal is filed with the board. All earthen reservoirs, pits, ponds, and open receptacles must comply with ARM 36.22.1207, 36.22.1226, and 36.22.1227. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

Rules 36.22.1404 and 36.22.1405 reserved

36.22.1406 CORRECTIVE ACTION (1) It is the obligation of the applicant to demonstrate to the board's satisfaction that the existing wells that penetrate the injection zone within the area of review are in adequate mechanical condition to prevent migration of injected fluid into any USDW. The board will require the applicant to submit a plan for corrective action, including the reworking, repairing or re-plugging of any such well(s) the board considers to be a possible avenue for fluid migration. Injection must not commence until satisfactory completion of the work required in the approved corrective action plan.

(2) The board may require that corrective action be taken if, after notice and hearing, it is shown that USDW's outside the area of review are threatened by an injection well or wells.

(History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1407 SIGNING THE APPLICATION (1) Applications must be signed (for a corporation) by a principal executive officer of at least the level of vice-president, or by an agent and attorney-in-fact; or, (for a sole proprietorship) by the sole proprietor; or, (for a partnership) by a general partner. If the application is submitted on behalf of a federal, state, or other public agency, or by a municipality, signature must be of a principal executive or a ranking elected official. The application may be signed by a duly authorized representative if the authorization is made in writing by one of the above described persons, and if the authorization either names an individual or specifies a position having responsibility for the operation of the project. The written authorization will be submitted to the board, and must be promptly replaced if the authorization no longer accurately describes the responsible position or person. Application for enhanced recovery projects must be signed by all operators who will participate in the proposed project, or by the unit operator if the request is part of a plan for unitized operation under 82-11-201, et seq., MCA. Applications for disposal wells must be signed by the well operator. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1408 FINANCIAL RESPONSIBILITY (1) The owner or operator of any injection well outside the exterior boundaries of Indian reservations must comply with the applicable bonding requirements of ARM 36.22.1308 and this sub-chapter.

(2) Owners or operators of injection wells in compliance with the U.S. environmental protection agency (EPA) financial assurance requirements on the date primary enforcement authority is delegated to the board of oil and gas conservation must

provide a bond on board Form No. 3 or Form No. 14 in an amount equal to that provided to the EPA, unless an alternative multi-well bond is approved as provided in this rule. This bond is limited to wells covered under the EPA bond. The bond may be reduced to reflect the plugging or re-completion of wells to other approved use. The reduction will be in the proportion each plugged or re-completed well represents to the total bond amount at the time the bond was initially accepted.

(3) Owners or operators proposing to drill or acquire additional injection wells must provide the individual well bonds described in ARM 36.22.1308 1(a)(i) or (ii) as appropriate for the depth of the well unless such additional well(s) are covered under a multiple well UIC bond as provided in this rule. The multiple well bond described in ARM 36.22.1308(1)(b) is not available for injection wells.

(4) Injection well operators may propose an alternative multiple well UIC bond to the board=s staff. The staff will review the proposed bond and provide a recommendation for its approval, modification, or rejection by the board at its next available scheduled meeting. In support of its request for a multi-well bond the operator may provide cost estimates for plugging and restoring the surface of wells of the type and in the area to be covered by the bond, the operator=s estimate of any residual or salvage value that may reduce the costs of plugging, and any other information the operator wishes to provide. In reviewing a proposed bond, the staff must consider the reasonableness of the cost estimates provided, the compli-
ance history of the operator, the operator=s history of promptly plugging unneeded wells, and the financial condition of the operator. Multiple well bonds will be in a minimum amount of $50,000.

(5) The board may accept a letter of credit in lieu of a surety bond or certificate of deposit. A letter of credit must meet the following conditions:

(a) it must be issued by a Montana bank;

(b) it must be in an amount equal to the bond otherwise required;

(c) it must be for a term of not less than one year, automatically renewable for additional one year period(s), and irrevocable during its term. The bank issuing the letter of credit must notify the board, by registered or certified mail, not less than 120 days prior to the expiration date of the letter of credit if it does not intend to renew the letter;

(d) the letter of credit will remain in the custody of the board; and

(e) the letter of credit must provide that it is immediately payable in full upon demand by the board if the person on whose behalf the letter is issued fails to properly plug each

dry or abandoned well and restore the surface of the location as provided by board rules.

(6) The board may reject a letter of credit and demand other security if it has reason to doubt the solvency of the bank or to believe the obligation of the letter of credit has become impaired. The board may require a financial statement from the principal and proof of solvency of the bank at any time before or after acceptance of the letter of credit. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1997 MAR p. 471, Eff. 3/11/97.)

36.22.1409 HEARINGS (1) For new wells or projects a petition for hearing of the application for underground injection must be filed in triplicate with the board at its Helena office. Upon receipt of the petition, the board will set a hearing date for the application, and cause notice of the hearing to be published as provided in 82-11-141, MCA. Notice of hearings will be first published at least 30 days in advance of the hearing date.

(2) Administrative approval may be given for an additional well or recompletion of an existing well within a previously approved area or enhanced recovery project, provided that the applicant demonstrates through the application that the well requested has substantially the same characteristics and operating parameters previously approved by the board for injection wells in the project. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1410 NOTICE OF APPLICATION (1) Notice of application for underground injection permit must be mailed to each current operator, and surface owners, within the area of review. A copy of the notice must also be mailed to the Region VIII office of the EPA. Such notices must be mailed on or before the date the application is mailed to or filed with the board.

(2) Applicants for an additional new well or wells, or for recompletion of an existing well or wells to injection service, within an approved area or enhanced recovery project must mail notice to each current operator, lease owner of non-operated lease, mineral owner of non-operated lease within the area of review, and the surface owner of each new well site, on or before the date the application is mailed to the board.

(3) The applicant must advise each party to which notice is given that the application is eligible for administrative approval by the program director, unless objections are received within 20 days of receipt of the application by the program dir-

ector. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1411 BOARD AUTHORIZATION (1) No injection program shall be instituted until the same has been authorized by the board.

(2) The board will make such special orders and rules for the individual case as conditions may justify.

(3) If the board determines, or is notified by EPA, that the approval of an application, or a portion of the application, is beyond the scope of delegated authority, or requires the concurrence of EPA, the board will refer the application to EPA, and final disposition of the application will be deferred until EPA concurrence is received. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

Rules 36.22.1412 and 36.22.1413 reserved

NEXT PAGE IS 36-5058

36.22.1414 NOTICE OF COMMENCEMENT OR DISCONTINUANCE - PLUGGING OF ABANDONED WELLS (1) Within 30 days of the commencement of underground injection operations, the applicant must notify the board of the same and the date of commencement in conjunction with the filing of form 4 for well completions and recompletions.

(2) Within 30 days after the discontinuance of an enhanced recovery or liquid hydrocarbon storage project, the operator of the project must notify the board of the date of such discontinuance and the reasons therefor.

(3) Before any class II well shall be abandoned, written notice must be served on the board, and approval of the abandonment plan received from the program director or other authorized representative of the board. The abandonment plan must, at a minimum provide for isolation of the injection zone with a cement, or mechanical plug capped with cement, and for the isolation and protection of each USDW in such a manner as to prevent movement of fluids between USDW's.

(4) Injection wells which fail a mechanical integrity test (MIT), or which otherwise have lost mechanical integrity, will be immediately removed from service and promptly repaired or plugged for abandonment within 180 days of the failed test or discovery of lost mechanical integrity unless otherwise ordered by the board; provided, however, that the operator of an injection well that has failed the MIT or has lost mechanical integrity may apply to the program director, or other authorized representative of the board, to defer repair or plugging. Any deferment granted will be under such conditions of physical isolation of the injection zone, or monitoring and reporting requirements deemed necessary under the circumstances to protect any USDW's penetrated by the wellbore. Up to a 2 year deferment may be granted administratively from the date of the failed test, but will not be extended without consent of the board. The board may order further deferment for up to 2 years, after notice and hearing, upon a showing that all USDW's are protected.

(5) Injection well operators will report the status of each unplugged injection well in its monthly injection reports on form 5. The operator will notify the board of any well which the operator expects to be shut-in or temporarily abandoned for a period of 6 months or more. Any injection well which has been shut-in or temporarily abandoned for a period in excess of 2 years must be properly plugged and abandoned. An operator may apply for a plugging deferment as provided in (4) above upon a showing of reasonable cause and demonstration of non-endangerment to USDW's. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1415 RECORDS REQUIRED (1) The owner or operator of any class II injection well or wells must keep and retain for at least 5 years, an accurate record of:

(a) the cumulative amount of fluid injected into such well or wells;

(b) the wellhead pressure or pressures, and the injection rate at the time the pressure is recorded;

(c) the total amount of water produced, and the total amount of oil and gas produced from an enhanced recovery project;

(d) the pressure in the casing - tubing annulus if monitoring of such pressure is required as part of a mechanical integrity test;

(e) the results of any chemical or physical analyses performed on injection zone fluids and injected fluids.

(2) The information required in (1)(a) through (d) of this rule must be observed at least weekly and a representative observation recorded at least monthly and filed with the board on board form 5.

(3) The owner or operator of any class II injection well permitted after the effective date of this rule must conduct a chemical analysis of the typical injected fluids during the 12th month of injection. Samples of typical injected fluids must be taken at the injection wellhead, or, where more than one well is receiving fluid from a common facility, the sample may be taken from the discharge line of such facility. The chemical analysis of the typical injected fluids must include tests for total dissolved solids (TDS), specific conductivity, pH, and percent oil and grease. The results of such analysis must be submitted in writing to the board within 45 days after the sample is taken. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1416 MECHANICAL INTEGRITY (1) From and after the effective date of these rules, all new wells drilled for, and all existing wells converted to, water injection or disposal must demonstrate mechanical integrity before being placed into service. A mechanical integrity test must be designed to determine whether there is a significant leak in the tubing, casing, or packer of the well, and whether there is a significant movement of injected fluid into any USDW or between any USDW's through vertical channels adjacent to the wellbore. The owner or operator of an injection well regulated under this chapter must maintain the mechanical integrity of such well

until the well is plugged.

(2) A mechanical integrity test that demonstrates that there are no significant leaks in the tubing, casing, or packer will include:

(a) a pressure test of the casing-tubing annulus using liquid or gas, or

(b) monitoring of the casing-tubing annulus following a valid initial pressure test, or

(c) a radioactive tracer survey, timed run method, or

(d) any other test or combination of tests considered effective by the board, and approved by the director, office of drinking water, U.S. EPA.

(3) A mechanical integrity test also will include a demonstration that there is no significant movement of injected fluid in vertical channels adjacent to the wellbore. Such demonstration must include a cement bond log (with a variable density curve, travel time curve, amplitude curve, and gamma ray curve) or equivalent and may include the following:

(a) cementing records which demonstrate volume and type of cement used and which demonstrate absence of unauthorized fluid migrations adjacent to the wellbore;

(b) radioactive tracer surveys;

(c) noise logs;

(d) temperature surveys;

(e) oxygen activation logs; or

(f) any other test or combination of tests considered effective by the board and approved by EPA.

(4) After the effective date of these regulations, all existing injection wells which have not had an initial mechanical integrity test must be tested for mechanical integrity as directed by the board.

(5) Injection wells must be retested for mechanical integrity no less than once each 5 years from the date last tested. Wells last tested under supervision of EPA will be retested under supervision of the board no less than 5 years from the EPA test date.

(6) A pressure test of the casing-tubing annulus as provided in (2)(a) must be performed at a minimum surface pressure of 300 pounds per square inch (psi) or 100 psi above the actual injection pressure at the time tested, whichever is greater; provided, however, that the maximum test pressure will not be required to exceed 800 psi surface pressure. The test will be considered successful if the applied pressure can be held for 15 minutes with no more than 5 percent pressure loss.

(7) Wells which fail the mechanical integrity test must be immediately shut-in until either repaired, reworked, or plugged for abandonment in accordance with ARM 36.22.1414. Such wells must be successfully retested for mechanical integrity before being placed in injection service.

(8) Subsequent to any mechanical integrity test, a well operation which causes the injection packer to be unseated or in which the tubing or packer was pulled, repaired or replaced or that has experienced a loss of mechanical integrity will require that the well be retested for mechanical integrity before being placed in service. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1417 NOTIFICATION OF TESTS - REPORTING RESULTS

(1) To the extent practicable, the board's field representative will schedule routine mechanical integrity tests required under ARM 36.22.1416. The owner or operator of a class II injection well must give the board at least 48 hours advance written, telephone, or facsimile notice of any mechanical integrity test not originally scheduled by a board repre-sentative. Notification of tests not included in the board's routine test schedule must specify the name and telephone number of the person responsible for scheduling the test, the name and address of the owner or operator of the injection well, the name and location of the well, and the time and date the mechanical integrity test will be performed. The board may at any time request a retest for wells where the mechanical integrity test was not performed under the oversight of a representative of the board.

(2) The owner or operator must provide a subsequent report of any mechanical integrity test (MIT) on board form 2 regard-less of whether or not the MIT is witnessed by a board repre-sentative. Subsequent reports are due within 15 days of the test unless remedial repairs are required, in which case a subsequent report is due within 15 days of completion of the remedial work. If submitted reports are found to not meet board requirements or if approved testing procedures were not used, the board may require a retest.

(3) Subsequent reports will include the date of the test or the date on which work began, the manner or method of test-ing, the results of the test, any remedial work done or required to be performed to demonstrate mechanical integrity, the type and cause of the well failure, and the pressure recording chart used to document the annulus pressure test. The name, address, and telephone number of the company representative, consultant, or contractor that performed the test also must be provided.

(4) Two copies of any well logs, surveys, fluid analyses or any other reports of a technical nature run or made during the test or as part of any reworking or repair efforts must be submitted with the subsequent report. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1418 EXEMPT AQUIFERS (1) The board may authorize the exemption of an aquifer from classification as an underground source of drinking water provided the aquifer:

(a) does not currently serve as a source of drinking water; and

(b) is not reasonably expected to serve as a source of drinking water because:

(i) the aquifer produces, or is capable of producing, mineral, hydrocarbon, or geothermal energy in commercial quantities, or

(ii) the aquifer is situated at a depth or location which makes recovery of the water for drinking water purposes economically or technologically impractical, or

(iii) the aquifer is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption, or

(iv) the aquifer is located above a class III well mining area subject to subsidence or catastrophic collapse; and

(c) the total dissolved solids content of the groundwater is more than 3,000 and less than 10,000 milligrams per liter and the aquifer is not reasonably expected to supply a public water system.

(2) Exempt aquifers will include:

(a) any aquifer or portion of an aquifer exempted by EPA prior to the effective date of these regulations;

(b) any aquifer or portion of an aquifer exempted by the board after the effective date of these regulations subsequently proposed after notice and hearing, provided such exemption is approved by EPA as required in 40 Code of Federal Regulations, part 144.7(b)(3);

(c) any aquifer or portion of an aquifer exempted by the board as a part of a public hearing on an application for an enhanced recovery or area injection permit or other class II well; or

(d) any aquifer or portion of an aquifer proposed by the board for exemption as part of the UIC primacy delegation or subsequently proposed after notice and hearing, provided such exemption is approved by EPA. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1419 TUBINGLESS COMPLETIONS (1) After the effective date of these regulations, tubingless completions or annular injection wells, or wells not equipped to inject through tubing below a packer or other suitable sealing device in the annulus will not be permitted.

(2) Exceptions to this requirement will be granted for existing wells in a board approved enhanced recovery or pressure maintenance project where the applicant can demonstrate that it is practically or economically not feasible to equip such wells with tubing and packer.

(3) Mechanical integrity testing and monitoring requirements will be required more frequently and be more stringent for wells permitted as an exception to this rule. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

Rules 36.22.1420 and 36.22.1421 reserved

36.22.1422 PERMIT CONDITIONS (1) Applications for injection wells approved by the board, or administrative approvals issued under the board's authority, are valid for the life of the injection well(s) unless revoked by the board for good cause, after notice and hearing.

(2) If administrative approval is requested, the board, or its authorized representative, may approve, modify, or reject any application submitted, stipulate the operating conditions, determine the appropriate test methods and test frequency, or limit the injection pressure and/or the quantity and quality of the fluids injected.

(3) Any operator or owner of an injection well may request an administrative review by the board, at its next regularly scheduled business meeting, of any modifications, stipulation, or restriction placed on a permit by the board's staff. The injection well must be operated in compliance with the original permit conditions until the board's administrative review is complete. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1423 INJECTION FEE - WELL CLASSIFICATION (1) The board will collect an annual injection fee of $200.00 for each injection well existing upon the effective date of these regulations, and for each injection well permitted thereafter.

(2) Wells will be classified as injection wells, under these regulations, if the well is:

(a) actively used for injection;

(b) has been completed for injection service but is idle or shut-in;

(c) has been reported to EPA as an injection well; or

(d) has been permitted by the board as an injection well, whether or not actually placed into injection service.

(3) A well will no longer be classified as an injection well when:

(a) it has been permanently plugged in accordance with the

board's rules;

(b) it has been re-completed or converted to other approved uses, but not simply idled or shut-in; or

(c) the work proposed under an approved permit was not done or could not be accomplished. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1992 MAR p. 2171 and 1996 MAR p. 1308, Eff. 5/10/96; AMD, 1997 MAR p. 473, Eff. 1/17/97; AMD, 1997 MAR p. 1589, Eff. 9/9/97.)

36.22.1424 WAIVER OF REQUIREMENT BY PROGRAM DIRECTOR

(1) When injection does not occur into, through, or above an underground source of drinking water, the program director may authorize a well or project with less stringent requirements for area of review, construction, mechanical integrity, operation, monitoring, and reporting than required herein.

(2) When injection occurs through or above an underground source of drinking water, but the radius of endangering influ-ence when computed under ARM 36.22.1425 is smaller or equal to the radius of the well, the program director may authorize a well or project with less stringent requirements for an area of review, operation, monitoring, and reporting than required herein to the extent that the reduction in requirements will not result in an increased risk of movement of fluids into an underground source of drinking water.

(3) When reducing requirements under (1) or (2) of this rule, the program director shall prepare a fact sheet explaining the reasons for the action. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1996 MAR p. 1308, Eff. 5/10/96.)

36.22.1425 AREA OF REVIEW (1) The area of review for each injection well or each field, project, or area of the state shall be determined according to either (2) or (3) of this rule unless a variance from these requirements is granted by the board.

(2) The zone of endangering influence shall be:

(a) in the case of application(s) for single well class II permits, that area the radius of which is the lateral distance in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of drinking water; or

(b) in the case of an application for an area permit, the project area plus a circumscribing area the width of which is the lateral distance from the perimeter of the project area, in which the pressures in the injection zone may cause the migra-tion of the injected and/or formation fluid into an underground source of drinking water.

(3) Computation of the zone of endangering influence may be based upon the parameters listed below and should be calcu-lated for an injection time period equal to the expected life of the injection well or pattern. The following modified Theis equation illustrates one form which the

$$r = \left(\frac{2.25KHt}{S\,10^{x}} \right)^{\%o}$$

mathematical model may take.

$$x = \frac{4pKH(\,h_w - h_{bo} \bullet S_P G_b)}{2.3Q}$$

where:

r	=	Radius of endangering influence from injection well (length)
K	=	Hydraulic conductivity of the injection zone (length/time)
H	=	Thickness of the injection zone (length)
t	=	Time of injection (time)
S	=	Storage coefficient (dimensionless)
Q	=	Injection rate (volume/time)
h_{bo}	=	Observed original hydrostatic head of injection zone (length) measured from the base of the lowermost underground source of drinking water
h_w	=	Hydrostatic head of underground source of drinking water (length) measured from the base of the lowest underground source of drinking water
S_pG_b	=	Specific gravity of fluid in the injection zone (di-mensionless)
p	=	3.142 (dimensionless)

The above equation is based on the following assumptions: (a) The injection zone is homogenous and isotropic;

(b) The injection zone has infinite areal extent;

(c) The injection well penetrates the entire thickness of the injection zone;

(d) The well diameter is infinitesimal compared to "r" when injection time is longer than a few minutes; and

(e) The emplacement of fluid into the injection zone creates instantaneous increase in pressure.

(4) To determine the fixed radius:

(a) In the case of application(s) for well individual class II permit(s), a fixed radius around the well of not less than one-fourth mile may be used.

(b) In the case of an application for an area permit, a fixed width of not less than one-fourth mile for the circumscribing area may be used.

(c) In determining the fixed radius, the following factors shall be taken into consideration:

(i) chemistry of injected and formation fluids;

(ii) hydrogeology;

(iii) population and groundwater use and dependence; and

(iv) historical practices in the area.

(5) If the area of review is determined by a mathematical model pursuant to (3) of this rule, the permissible radius is the result of such calculation even if it is less than one-fourth mile. (History: 82-11-111, MCA; IMP, 82-11-111, 82-11-121, 82-11-123, 82-11-124, 82-11-127, and 82-11-137, MCA; NEW, 1996 MAR p. 1308, Eff. 5/10/96.)

Sub-Chapter 15 reserved

Sub-Chapter 16

Regulations to Implement the Natural Gas Policy Act

36.22.1601 WHO MAY APPLY FOR DETERMINATION (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 64, Eff. 6/29/79; AMD, 1982 MAR p. 1398, Eff. 7/16/82; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1602 APPLICATION REQUIREMENTS AND CONTENTS (IS HERE-BY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; AMD, 1982 MAR p. 1398, Eff. 7/16/82; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1603 DOCUMENTS AND TECHNICAL DATA SUPPORTING APPLICATION (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1604 DOCKET NUMBER (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1605 LIST OF APPLICATIONS - PUBLIC ACCESS (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115 and 82-11-116, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1606 OBJECTIONS TO APPLICATIONS (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1607 DEADLINES FOR ACTION ON DETERMINATIONS (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1608 DEFICIENT APPLICATIONS (IS HEREBY REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1609 BOARD ACTION ON APPLICATIONS (IS HEREBY REPEALED) (History: 82-15-111, MCA; IMP, 82-15-111, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1610 SPECIAL FINDINGS AND DETERMINATIONS - NEW ONSHORE PRODUCTION WELLS UNDER SECTION 103 (REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

36.22.1611 SPECIAL FINDINGS AND DETERMINATIONS - STRIPPER WELL PRODUCTION (REPEALED) (History: 82-11-115, MCA; IMP, 82-11-115, MCA; EMERG, NEW, 1979 MAR p. 648, Eff. 6/29/79; REP, 1996 MAR p. 1160, Eff. 4/26/96.)

NEXT PAGE IS 36-5121

Sub-Chapter 17

Horizontal Wells and Enhanced Tax Recovery Incentives

36.22.1701 CERTIFICATION OF HORIZONTAL WELLS (1) Upon request by the operator, the board's staff will certify to the department of revenue the completion of a horizontal well. Such well must be drilled and completed in conformance with the board's rules and any required reports, including the directional survey required under ARM 36.22.703(5), must be on file with the board before the certification is made. A well that has not produced for five (5) or more years prior to its completion as a horizontal well, or a well which was permanently plugged for abandonment prior to its re-entry and completion as a horizontal well, will be considered a new horizontal well for the purpose of certification. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)

36.22.1702 CERTIFICATION OF ENHANCED RECOVERY PROJECTS (1) The board, upon application of an interested party and notice and hearing, will certify to the department of revenue its approval of a new or expanded enhanced recovery project. Projects requiring compulsory unitization under 82-11-204, MCA, et seq. and wholly voluntary projects requested under ARM 36.22.1229 through 36.22.1234 must comply with the application, notice, and hearing requirements under the applicable rule or statute. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)

36.22.1703 APPLICATION - CONTENTS AND REQUIREMENTS

(1) Applications for certification and approval of secondary recovery projects and new tertiary recovery projects that comply with the requirements of 82-11-204, MCA, et seq. need not file an additional application for certification; the project will be certified upon approval by the board. Applications for secondary recovery projects and new tertiary recovery projects following the procedure in ARM 36.22.1229 through 36.22.1234 must additionally include a map or plat showing the project boundaries and a legal description of all of the tracts to be included in the project area. Applicants for certification of tertiary projects must also describe the tertiary method(s) to be used. Applicants will be required to supply technical and economic evidence that the project can reasonably be expected to result in a significant increase in the ultimate recovery of oil.

(2) Applications for approval and certification of expansion of an existing enhanced recovery project must include:

(a) a map or plat of the previously approved project and the area to be affected by the proposed expansion;

(b) a description of the method or methods to be used to enhance recovery in the project area;

(c) the name(s), depths, and description of the unitized or target formation(s) and the formation(s) which are producing or have produced within the project area;

(d) the location of all oil and gas wells, input wells, dry holes, and drilling wells;

(e) the location of proposed new injection or production wells or horizontally re-completed injection or production wells and the anticipated timetable for drilling or re-completion of such wells;

(f) the proposed effective date of the project. If the project expansion involves a change in operating conditions the application must include a description of both the current operating practices and the proposed changes to be made. The applicant must demonstrate that the proposed expansion is reasonably expected to result in the recovery of oil that would not otherwise be recovered if the expansion were not performed. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)

36.22.1704 DETERMINATION OF PRODUCTION DECLINE RATE

(1) Production decline rates used for calculation of incremental production from secondary and tertiary recovery projects and expanded enhanced recovery projects will be determined by the board upon application of the operator and after notice and hearing. This determination may be made con-currently with the approval and certification of the enhanced recovery project, or at a subsequent hearing.

(2) The production decline rate for a project will be based on the primary producing mechanism(s) of the reservoir and, where applicable, the secondary recovery mechanism(s) of the project and the production history of the project. Where the production history of the project area is sufficient a decline rate will be determined by applying an exponential or hyperbolic method of analysis. If production history is not sufficient or appropriate an exponential or hyperbolic method may be applied to an analogous project, field, or well. Conventional or numeric reservoir performance analysis methods may also be used.

(3) The applicant for a hearing will file with the board's staff the production history data, the proposed analysis method(s), and any supporting information which the applicant intends to present at the hearing. This filing will be

sufficiently in advance of the hearing to allow the staff an opportunity to review the data and methods selected in order to provide a recommendation for approval, modification, or rejection of the application to the board.

(4) The determination of the decline rate for individual wells in primary production which have been horizontally re-completed will be done by filing a request for determination with the board's staff. The operator may propose the method of analysis and provide data which it wishes the board's staff to use in the determination. The staff's determination will be presented to the board at the next available regular meeting. In the absence of a protest of the determination further evidence or testimony will not be required. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)

36.22.1705 FILING FEES (1) An application for determination of the production decline rate from a new or expanded enhanced recovery project will pay a fee based upon:

(a) the number of wells which produce or have produced in the project area;

(b) the method used to analyze these data. Fees will be established at the time the request for determination is made to the board's staff and must be paid before the rate of decline is certified to the department of revenue. The fee schedule will be as follows:

Projects which require review/analysis of production from:

10 or fewer producing wells	$100.00
10 to 100 wells	$100.00 plus $5.00 per well over 10
over 100 wells	$550.00 plus $2.50 per well over 100

Methods of analysis multiplier:

To the fee determined above multiply by:	
1 (no multiplier)	exponential or hyperbolic analysis of project data
1.5	exponential or hyperbolic analysis of analog project
2.0	numeric simulation or material balance/volumetric methods

For unusually complex or atypical methods or projects, the staff may request that the board establish a processing fee as part of the approval/certification hearing for a particular project. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)

36.22.1706 DEFINITIONS (1) For the purposes of this subchapter the definitions at 15-23-601, MCA, apply. (History: 7-7-2101 and 82-11-111 MCA; IMP, 15-23-601 and 15-36-101 MCA; NEW, 1994 MAR p. 1875, Eff. 7/8/94.)